



TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION COUNCIL (TVET CDACC)

MENTORING TOOL

FOR

COMPUTER SCIENCE

LEVEL 6

FOREWORD

This mentoring tool has been developed by TVET Curriculum Development, Assessment and Certification Council (TVET CDACC) in partnership with trainers and industry experts in ICT.

Mentoring relationships have demonstrated to be an excellent way of enhancing professional growth. Both the mentor and the mentee give and grow in the mentoring process. The mentee can learn valuable knowledge from the mentor's expertise and past mistakes and competencies can be strengthened in specific areas. Mentees will have the opportunity to establish valuable connections with higher level employees. The success of mentoring will depend on clearly defined roles and expectations in addition to the mentee's awareness of the benefits of participating in the mentoring program.

This mentoring tool is an assessment tool used to assess whether a mentee meets the National Occupational Standards for computer Science Technician Level 6. Whilst there is no agreement or finite evidence as to how many times this supervised exercise should occur, both the mentor and the mentee should feel confident that the mentee has the necessary knowledge, skills and attitudes (worker behaviors) to work as an ICT Technician.

The Mentoring will facilitate the experienced mentors in the world of work to share knowledge and experiences with mentees working under them towards a mutually beneficial professional development relationship. Mentors will be helpful in building competencies of mentees in areas of practice.

PROF. KISILU KITAINGE
CEO/COUNCIL SECRETARY

TRAINEE (MENTEE) DETAILS

Name of Trainee (Mentee)	
Institution's Registration Code of Trainee (Mentee)	
TVET CDACC Registration Code of Trainee (Mentee)	
Trainee's/mentee's Institution Details	Name:
	Physical & postal address:
	Phone and email address:
Date of Commencement of Mentoring Period (dd/mm/yyyy)	
Date of Completion of Mentoring Period (dd/mm/yyyy)	
Organization	Name:
	Physical & postal address:
	Phone and email address:

INFORMATION FOR USERS

Role of a Mentor

A **mentor** is someone who provides support and advice that empowers the mentee to achieve knowledge, skills and attitudes (worker behaviors). This may be a supervisor, manager or a worker who is an expert in a particular field.

The role of the mentor includes:

- Assisting mentee understand the organization's requirements
- Assigning mentee tasks
- Observing mentee performance and record areas where the mentee needs improvement
- Assisting the mentee to come up with action plan for areas where he/she needs improvement

Role of Mentee

A **mentee** is a trainee who is on work placement (attachment) or is on-job training in an organization.

The role of the mentee includes:

- Completing the assessment tasks assigned by the mentor and filling out the self-assessment section
- Keeping the company's information confidential
- Being aware that he/she may be working with people from different backgrounds and cultures, so there is a need to respect those differences
- Asking for feedback and giving feedback when required.
- Upholding the organization's standards of work ethics

Role of Industrial Liaison Officer

The Industrial Liaison Officer (ILO) is the officer in the training institution assigned the responsibility of coordinating activities of industry training based on TVET CDACC and institutions guidelines for industry training. The role of ILO include;

- Sensitizing trainees on their responsibilities during industry training
- Sensitizing mentors on their roles during industry training for trainees
- Coordinate industry training
- Receiving mentoring tools from trainees
- Ensuring mentorship tools are included in each candidate portfolio of evidence
- Upload candidate final mark to TVET CDACC portal

How to use the mentoring tool

- Where a skill, knowledge or attitude is not applicable in a particular workplace, the mentee should indicate not applicable (NA)
- The mentor should ask the mentee oral questions to gauge the knowledge of the mentee
- The mentee should fill the self-assessment section upon self-evaluation
- The mentor should fill the mentor review record upon observing and evaluating the mentee
- Action plan should be filled by the mentee after agreeing with the mentor for any item assessed as needs to improve
- Upholding the organization's standards of work ethics.

Mentoring Period

The attachment period should be at least three months. Mentee should spend at least two thirds of the attachment period to understand computer organization and architecture, understand operating systems, understand mathematics for computer science, understand fundamentals of

programming, demonstrate database management skills, develop an information system, understand networking and distributed system, understand artificial intelligence, understand algorithms and data structures, demonstrate web design skills, understand graphic design. Time spent in each section/department should be documented using form in appendix A.

Number of Assessments

Three assessments are to be conducted using the mentoring tool: one within the first month of the attachment where the mentor assesses the mentee to assess their initial level of competence; another assessment will be conducted within the second month of the attachment period to gauge the progress of the mentee and the third one will be conducted within the third month of the attachment. However, the assessment outcome is based on the third /final assessment.

Submission of Mentoring Reports

The trainee/mentee is required to submit each of the three mentoring reports (in hard or soft copy) to the Industrial Liaison Officer of the respective institution. The Industrial Liaison Officer is required to submit to TVET CDACC offices the three mentor's summary reports (Appendix B). The mentoring reports for each trainee/mentee are to be kept in the institution and made available to TVET CDACC on request.

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1. UNDERSTAND COMPUTER ORGANIZATION AND ARCHITECTURE

Mentor and mentee: Please fill information for each of the three sections in the respective columns. Initials should be used as given in the header below.

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	KNOWLEDGE The mentee demonstrates knowledge of:		Self-assessment	Mentor review		
1.	Principles of computer organisation and design					
2.	Central Processing Unit functions					
3.	Computer memory functions					
4.	Input-Output functions					
5.	Computer arithmetic and logic					
	SKILLS The mentee:					
6.	Identifies Computer organisation architecture					
7.	Identifies Structure and function of computer components					
8.	Recognizes Hardware components of a					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	computer					
9.	Identifies the role of registers					
10.	Identifies Instruction representation and execution					
11.	Prescribes CPU specifications for a user					
12.	Verifies CPU specifications for a given computer					
13.	Identifies Memory organization					
14.	Uses various storage technologies					
15.	Identifies Cache and Virtual memory					
16.	Verifies Memory specifications for a given computer					
17.	Identifies Peripheral devices					
18.	Prescribes Input-output device specifications for a user					
19.	Verifies Input-output device specifications for a given computer					

Note:

To be declared competent, the mentee must get:

1. 10 of the 19 (50%) items of evaluation correct and
2. Items 6,9,15 and 18 are correct.

Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent <input data-bbox="461 746 524 778" type="checkbox"/> Not Yet Competent <input data-bbox="461 802 524 834" type="checkbox"/> (If not yet competent, please specify in the remarks column which areas the mentee need to improve on)	

2. UNDERSTAND OPERATING SYSTEMS

Mentor and mentee: Please fill information for each of the three sections in the respective columns. Initials should be used as given in the header below.

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	KNOWLEDGE The mentee demonstrates knowledge of:		Self-assessment	Mentor review		
1.	Concepts of operating systems					
2.	Process management					
3.	Memory management					
4.	Input/output management					
5.	File management and local security policy settings					
	SKILLS The mentee:					
6.	Identifies Computer Software- operating system					
7.	Identifies structures of operating system – monolithic, layered, virtual and client					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	server model					
8.	Identifies types of operating system - real time, normal, batch and time sharing					
9.	Outlines Installation requirements for windows					
10.	Demonstrates Installation of Windows					
11.	Demonstrates the use of the Task Manager					
12.	Demonstrates use of performance monitor tool					
13.	Identifies memory management techniques – partitions and virtual					
14.	Demonstrates Virtual Memory Management settings					
15.	Identify Disk management operations - Shrinking volume, Extending volume, Formatting volume, Partitioning volume Disk Optimization and defragmentation					
16.	Demonstrates Disk Storage Management					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	Operations					
17.	Demonstrates Device management operations using the device manager					
18.	Demonstrates file and directory operations					
19.	Demonstrates Local Policy security Settings					

Note:

To be declared competent, the mentee must get:

1. 10 of the 19 (50%) items of evaluation correct and
2. Items 6,9,14,16 and 19 correct.

Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent <input data-bbox="461 515 524 547" type="checkbox"/> Not Yet Competent <input data-bbox="461 568 524 600" type="checkbox"/> (If not yet competent, please specify in the remarks column which areas the mentee need to improve on)	

3. UNDERSTAND MATHEMATICS FOR COMPUTER SCIENCE

Mentor and mentee: Please fill information for each of the three sections in the respective columns. Initials should be used as given in the header below.

S/N.	Items for evaluation (knowledge, skills and attitudes)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	KNOWLEDGE The mentee demonstrates knowledge of:		Self-assessment	Mentor review		
1.	Linear Algebra					
2.	Boolean algebra					
3.	Set Theory					
4.	Calculus					
5.	Probability and Statistics					
	SKILLS The mentee:					
6.	Identifies linear and Boolean algebra					
7.	Applies set Theory					
8.	Analyses data using Probability statistics					
9.	Ability to represent data in different techniques-bar graph, pie chart, scatter plot					

Note:

To be declared competent, the mentee must get:

1. 5 of the 10 (50%) items of evaluation correct and
2. Items 8 and 9 correct.

Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent <input data-bbox="461 898 521 930" type="checkbox"/> Not Yet Competent <input data-bbox="461 954 521 986" type="checkbox"/> (If not yet competent, please specify in the remarks column which areas the mentee need to improve on)	

4. UNDERSTAND FUNDAMENTALS PROGRAMMING

Mentor and mentee: Please fill information for each of the three sections in the respective columns. Initials should be used as given in the header below.

S/N.		Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	KNOWLEDGE The mentee demonstrates knowledge of:		Self-assessment	Mentor review		
1.	Programming concepts					
2.	Compiler operations					
3.	The Java environment					
4.	Data Operations					
5.	Control Structures					
6.	Procedures					
7.	Object Oriented Programming					
	SKILLS The mentee:					
8.	Identifies Phases of program development					
9.	Identifies Key terms used in					

S/N.		Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	programming					
10.	Identifies Program Translators					
11.	Installs Java					
12.	Demonstrates Java programming environment					
13.	Demonstrate Java data types and syntaxis					
14.	Identifies the Variables and constants in Java					
15.	Demonstrates Data operations in Java					
16.	Creates Program to perform specified operations using Java					
17.	Use Control Structures in Java					
18.	Demonstrates the uses of different control statements in Java					
19.	Creates Programs using control statements in Java					
20.	Use Procedures/ Functions/ Methods in Java					

S/N.		Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
21.	Demonstrates the use of Methods in a program					
22.	Identifies Object oriented programming					
23.	Demonstrates Classes and objects					
24.	Demonstrates Inheritance					
25.	Develops a program using Inheritance					

Note:

To be declared competent, the mentee must get:

1. 12 of the 25 (50%) items of evaluation correct and
2. Items 8,18,19,21 and 25 correct.

Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent <input data-bbox="461 515 524 547" type="checkbox"/> Not Yet Competent <input data-bbox="461 568 524 600" type="checkbox"/> (If not yet competent, please specify in the remarks column which areas the mentee need to improve on)	

5. DEMONSTRATE DATABASE MANAGEMENT SKILLS

Mentor and mentee: Please fill information for each of the three sections in the respective columns. Initials should be used as given in the header below.

S/N.	Items for evaluation (knowledge and Skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	KNOWLEDGE The mentee demonstrates knowledge of:		Self-assessment	Mentor review		
1.	Database concepts					
2.	Database design					
3.	Structured Query Language					
4.	Object oriented database design					
5.	Applications of object-oriented databases					
	SKILLS The mentee:					
6.	Identifies the reasons of using databases					
7.	Identifies the key concepts in relational modelling					
8.	Demonstrates Installation of MS SQL server					

S/N.	Items for evaluation (knowledge and Skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
9.	Uses MS SQL server interface					
10.	Identifies the Properties of MS SQL server database					
11.	Illustrates Entity modelling using UML notation					
12.	Demonstrates Normalisation					
13.	Validates the ER model according to the requirements					
14.	Use Structured Query Language (SQL)					
15.	Demonstrates Creation of tables using the SQL CREATE TABLE statement					
16.	Demonstrates CREATE TABLE statement constraints					
17.	Edits The table schema using the SQL ALTER statement					
18.	Drops a table using the SQL DROP TABLE statement					
19.	Demonstrates Data manipulation query statements					

S/N.	Items for evaluation (knowledge and Skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
20.	Identifies the SQL joins					
21.	Creates and queries a database from validated ER model					
22.	Demonstrates Types of joins					
23.	Apply Object oriented database concepts					
24.	Implements Object Oriented database concepts from a set of requirements					
25.	Demonstrates Creating of views and triggers in object-oriented databases					
26.	Implement Indexing and hashing					
27.	Demonstrates Indexing in databases					
28.	Demonstrates Hashing in databases					
29.	Implements Indexing and hashing in an existing database					
30.	Demonstrates Distributed databases					
31.	Illustrates Data warehousing					
32.	Illustrates multi-media databases					
33.	Designs and implements Data warehouses from a given set of					

S/N.	Items for evaluation (knowledge and Skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	requirements.					

Note:

To be declared competent, the mentee must get:

1. 17 of the 34 (50%) items of evaluation correct and
2. Items 8, 9,10,14,and 30 correct.

Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent ☐ Not Yet Competent ☐ (If not yet competent, please specify in the remarks column which areas the mentee need to improve on)	

6. DEVELOP AN INFORMATION SYSTEM

Mentor and mentee: Please fill information for each of the three sections in the respective columns. Initials should be used as given in the header below.

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	KNOWLEDGE The mentee demonstrates knowledge of:		Self-assessment	Mentor review		
1.	Types of information systems					
2.	Software development methodologies					
3.	Modelling techniques					
4.	Interface Design Principles					
5.	VB.Net program structure					
6.	Basic VB.Net Controls Elements of a control					
	SKILLS The mentee:					
7.	Identifies Information system types					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
8.	Identifies Software Development Life Cycle					
9.	Identifies Software Development Methodologies					
10.	Demonstrates Modelling techniques using CASE tools					
11.	Demonstrate Human Computer Interaction					
12.	Identifies Interface design principles					
13.	Demonstrates Interface design using a design software					
14.	Identifies components of .Net framework					
15.	Installs Visual Studio					
16.	Identifies Features of VB.Net and IDE environment					
17.	Identifies VB.Net program structure					
18.	creates and compiles VB.Net project					
19.	Use					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	Basic VB.Net Controls					
20.	Demonstrates Basic VB.Net Controls' Properties, Methods and Events					
21.	Demonstrates Event handling					
22.	Demonstrates Forms design using HCI principles					
23.	Demonstrates Connection of VB.Net applications to a database					

Note:

To be declared competent, the mentee must get:

1. 12 of the 23 (50%) items of evaluation correct and
2. Items 8,15,20,22 and 23 correct.

Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent <input data-bbox="461 579 524 612" type="checkbox"/> Not Yet Competent <input data-bbox="461 632 524 665" type="checkbox"/> (If not yet competent, please specify in the remarks column which areas the mentee need to improve on)	

7. UNDERSTAND NETWORKING AND DISTRIBUTED SYSTEMS

Mentor and mentee: Please fill information for each of the three sections in the respective columns. Initials should be used as given in the header below.

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	KNOWLEDGE The mentee demonstrates knowledge of:		Self-assessment	Mentor review		
1.	Fundamentals of networking and distributed systems					
2.	Distributed systems architectures					
3.	Distributed processing and file management					
4.	Setting up a network in a distributed environment					
5.	Troubleshooting a network					
	SKILLS The mentee:					
6.	Illustrates Types of networks					
7.	Identifies Network topologies					
8.	Identifies Types of distributed systems					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
9.	Illustrates the Models in distributed systems					
10.	Specifies the Network requirements for a site					
11.	Illustrates Distributed architecture					
12.	Illustrates Architecture styles					
13.	Illustrates the Types of distributed system architectures					
14.	Specifies the Distributed system architecture requirements for a simulated site					
15.	Identifies Types of distributed processing					
16.	Illustrates the Types of file systems					
17.	Illustrates File sharing and accessing methods					
18.	Demonstrates Distributed file sharing and access					
19.	Identifies the Tools, materials and devices for network set up according to					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	the network type					
20.	Connects and configures network devices according to local and international standards					
21.	Installs and configures Network software according to the user manual					
22.	Tests Network performance					
23.	Demonstrates Network IP address classes					
24.	Identifies the techniques and procedures of Troubleshooting					
25.	Demonstrates Troubleshooting tools					
26.	Performs network troubleshooting as per IEEE standards					

Note:

To be declared competent, the mentee must get:

1. 13 of the 26 (50%) items of evaluation correct and
2. Items 6,9,15,16 and 25 correct.

Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent ☐ Not Yet Competent ☐ (If not yet competent, please specify in the remarks column which areas the mentee need to improve on)	

8. UNDERSTAND ARTIFICIAL INTELLIGENCE

Mentor and mentee: Please fill information for each of the three sections in the respective columns. Initials should be used as given in the header below.

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	KNOWLEDGE The mentee demonstrates knowledge of:		Self-assessment	Mentor review		
1.	Concepts of Artificial Intelligence					
2.	Problem solving techniques					
3.	Python programming environment					
4.	Development of Artificial Intelligence programs using python					
	SKILLS The mentee:					
5.	Identifies Applications of Artificial Intelligence					
6.	Identifies Intelligence agents					
7.	Recognizes Artificial Intelligence applications in real life					
8.	Apply Propositional and Predicate logic to					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	solve problems					
9.	Identifies Types of Machine Learning					
10.	Recognizes applications of different types of inferencing					
11.	Demonstrates Installation of Python					
12.	Demonstrates Python syntax					
13.	Demonstrates Data types in Python					
14.	Demonstrates Control structures in Python					
15.	Demonstrates Functions in python					
16.	Demonstrates Object Oriented Python					
17.	Demonstrates Scientific Modules in Python					
18.	Explains Sci-Kit Learn					
19.	Demonstrates Machine Learning with K-Nearest Neighbours					
20.	Demonstrates Machine Learning with Naïve Bayes Algorithm					

Note:

To be declared competent, the mentee must get:

1. 10 of the 20 (50%) items of evaluation correct and
2. Items 6,7,14, and 20 are correct.

Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent <input data-bbox="461 770 521 802" type="checkbox"/> Not Yet Competent <input data-bbox="461 826 521 858" type="checkbox"/> (If not yet competent, please specify in the remarks column which areas the mentee need to improve on)	

9. UNDERSTAND ALGORITHMS AND DATA STRUCTURES

Mentor and mentee: Please fill information for each of the three sections in the respective columns. Initials should be used as given in the header below.

S/N.	Items for evaluation (knowledge, skills and attitudes)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	KNOWLEDGE The mentee demonstrates knowledge of:		Self-assessment	Mentor review		
1.	Algorithm writing					
2.	Understanding of the concepts of data structures					
3.	Key concepts in data structures					
4.	Basic operations for various linked lists					
5.	Basic operations in queues and sorting					
6.	Graph data structure					
7.	Trees data structure					
8.	Recursion					
	SKILLS The mentee:					
9.	Writes algorithms and identifies					

S/N.	Items for evaluation (knowledge, skills and attitudes)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	Complexities of algorithms					
10.	Identifies Key concepts in data structures -Arrays ie insertion operations, delete, search and update					
11.	Demonstrates Basic operations for the various linked lists using c#					
12.	Identifies the use of stack and queues operations					
13.	Apply searching and sorting algorithms					
14.	Demonstrate shortest path using C#					
15.	demonstrate binary tree search using C#					
16.	Demonstrate recursion using C#					

Note:

To be declared competent, the mentee must get:

1. 8 of the 16 (50%) items of evaluation correct and
2. Items 11, 12 ,14,15 and 16 correct.

Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent <input data-bbox="461 927 524 962" type="checkbox"/> Not Yet Competent <input data-bbox="461 981 524 1016" type="checkbox"/> (If not yet competent, please specify in the remarks column which areas the mentee need to improve on)	

10. DEMONSTRATE WEB DESIGN SKILLS

Mentor and mentee: Please fill information for each of the three sections in the respective columns. Initials should be used as given in the header below.

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	KNOWLEDGE The mentee demonstrates knowledge of:		Self-assessment	Mentor review		
1.	HTML basics					
2.	HTML core elements					
3.	Web page formatting					
4.	Style concepts					
5.	JavaScript basics					
6.	JavaScript data types					
7.	JavaScript functions					
8.	JavaScript libraries					
	SKILLS The mentee:					
9.	Creates a HTML file					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
10.	Identify HTML core elements					
11.	Add HTML core elements to the file					
12.	Adds basic HTML elements to a HTML document					
13.	Adds attributes to Elements					
14.	Adds layout elements to the HTML document					
15.	Adds Layout element attributes to the HTML document					
16.	Applies Internal styles					
17.	Applies Internal styles					
18.	Creates External CSS file					
19.	Demonstrates Access to HTML element attributes using JavaScript Document Object Model (DOM)					
20.	Demonstrates changing HTML					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	element attributes using DOM					
21.	Demonstrates operations on the data types					
22.	Demonstrates operations on arrays					
23.	Identifies Structure of a JavaScript function					
24.	Creates a JavaScript function					
25.	Invokes a JavaScript					
26.	Returns Values using functions					
27.	Demonstrates Installation of JQuery					
28.	Demonstrates referencing of JQuery					
29.	Demonstrates JQuery syntax					
30.	Identifies JQuery events					
31.	Demonstrates DOM Manipulation with JQuery					

Note:

To be declared competent, the mentee must get:

1. 16 of the 31 (50%) items of evaluation correct and
2. Items 9,11,18 and 31 correct.

Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent <input data-bbox="461 823 524 855" type="checkbox"/> Not Yet Competent <input data-bbox="461 879 524 911" type="checkbox"/> (If not yet competent, please specify in the remarks column which areas the mentee need to improve on)	

11. UNDERSTAND GRAPHIC DESIGN

Mentor and mentee: Please fill information for each of the three sections in the respective columns. Initials should be used as given in the header below.

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	KNOWLEDGE The mentee demonstrates knowledge of:		Self-assessment	Mentor review		
1.	Fundamentals of graphic design					
2.	Elements and principles of graphic design					
3.	Typography techniques					
4.	Creating and editing Images					
5.	Layout Design					
6.	Printing graphics					
	SKILLS The mentee:					
7.	Identifies Graphic design equipment based on the design.					
8.	Identifies Specification of requirements as per the user					
9.	Identifies the Elements of graphic design					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
10.	Identifies Typography techniques and guidelines					
11.	Demonstrates Measurements and standards of typography					
12.	Selects Typography technique for a graphic design project as per user requirements					
13.	Identifies Software and tools for graphic design and photography					
14.	Creates Letter forms, lines of type and body copy using appropriate software					
15.	Creates and manipulates Images using appropriate software.					
16.	Creates unified systems out of dissimilar elements					
17.	Creates Dynamic layouts by using typographic tools					
18.	Creates type and image project					
19.	Identifies Tools and Equipment for					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes e.t.c.
	printing					
20.	Identifies Types of printing based on the design.					
21.	Classifies paper according to types, size and weight.					
22.	Demonstrates Printing of the actual design					

Note:

To be declared competent, the mentee must get:

1. 13 of the 25 (50%) items of evaluation correct and
2. Items 8,13,18,21 and 22 are correct.

Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent <input data-bbox="461 515 524 549" type="checkbox"/> Not Yet Competent <input data-bbox="461 568 524 601" type="checkbox"/> (If not yet competent, please specify in the remarks column which areas the mentee need to improve on)	

12. WORKER BEHAVIOUR

Mentor and mentee: Please fill information for these sections in the respective columns. Initials should be used as given in the header below.

The mentee is supposed to demonstrate the following worker behaviour.

S/N.	Items for evaluation (attitudes)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes etc.
	The mentee is:		Self-assessment	Mentor review		
1.	An effective communicator					
2.	A team player					
3.	Tolerant					
4.	Trustworthy					
5.	Respectful					
6.	Emotionally intelligent					
7.	A Problem solver					
8.	Open minded					
9.	Self-aware					
10.	Creative and innovative					
11.	Diligent/ thorough					
12.	Environmentally conscious					
13.	Time conscious					
14.	Presentable					

S/N.	Items for evaluation (attitudes)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes etc.
15.	Resilient and self-driven					
16.	Aligned to values of the organization					
17.	Growth oriented					

NOTE: Note: (instructions for evaluation)

To be declared competent, the mentee must get

1. 13 of the 17 (75%) items of evaluation correct

Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent ☐ Not Yet Competent ☐ (If not yet competent, please specify in the remarks column which areas the mentee need to improve on)	

APPENDIX A: SUMMARY OF TOTAL PERIOD OF MENTORING (TO BE FILLED BY MENTEE)

S/N	Section/Department/ workplace	Worksite/workstation/workshop/ workplace	Period (Weeks/days)	Mentor's Name
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				

APPENDIX B: MENTOR SUMMARY REPORT (TO BE FILLED BY OVERALL SUPERVISOR)

NAME OF TRAINEE: REGISTRATION NUMBER OF TRAINEE: NAME OF TRAINEE'S INSTITUTION: NAME OF MENTOR: DESIGNATION: MENTORING ORGANIZATION: DATE : SIGNATURE AND STAMP:	
Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent ☐ Not Yet Competent ☐ <i>(The candidate is competent if s/he gets 50% of the items correct)</i> <i>(If not yet competent, please specify in the remarks column which areas the mentee need to improve on)</i>	

<i>Feedback from mentor (Supervisor):</i>	
<i>Mentor's signature:</i>	<i>Date</i>
<i>Feedback from mentee (trainee):</i>	
<i>Mentee's signature:</i>	<i>Date</i>

APPENDIX C: ADDITIONAL SKILLS ACQUIRED DURING THE MENTORING PERIOD (TO BE FILLED BY MENTEE)

S/N	Additional skill acquired	Description of the task	What new things have you learned from this task
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

APPENDIX D: INDUSTRIAL LIAISON OFFICER FORM (TO BE FILLED BY ILO)

NAME OF INSTITUTION:

NAME OF ILO OFFICER:

DATE :

REMARKS

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SIGNATURE AND STAMP: