



RQF LEVEL 3



SWDUX301

**SOFTWARE
DEVELOPMENT**

UI/UX Design

TRAINER'S MANUAL

October, 2024



UI/UX DESIGN

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ACRONYMS

CBT: Competency Based Training

CLI: Command line interface

GUI: Graphical user interface

INVEST: Independent Negotiable Valuable Estimable Small Testable

SMART: Specific Measurable Achievable Realistic Time-bound

RQF: Rwanda Qualification Framework

RTB: Rwanda TVET Board

SWDUX: Software Development User Experience

TQUM Project: TVET Quality Management Project

TVET: Technical Vocational and Education Training

UI: User Interface

UX: User Experience

VUI: Voice user interface

INTRODUCTION

This trainer's manual includes all the methodologies required to effectively deliver the module titled "**UI/UX Design.**" Trainees enrolled in this module will engage in practical activities designed to develop and enhance their competencies.

The development of this training manual followed the Competency-Based Training and Assessment (CBT/A) approach, offering ample practical opportunities that mirror real-life situations.

The trainer's manual is organized into Learning Outcomes, which is broken down into indicative content that includes both theoretical and practical activities. It provides detailed information on the key competencies required for each learning outcome, along with the objectives to be achieved.

As a trainer, you will begin by asking questions related to the activities to encourage critical thinking and guide trainees toward real-world applications in the labor market. The manual also outlines essential information such as learning hours, didactic materials, and suggested methodologies.

This manual outlines the procedures and methodologies for guiding trainees through various activities as detailed in their respective trainee manuals. The activities included in this training manual are designed to offer students opportunities for both individual and group work. Upon completing all activities, you will assist trainees in conducting a formative assessment known as the end learning outcome assessment. Ensure that trainees review the key reading and the points to remember section.

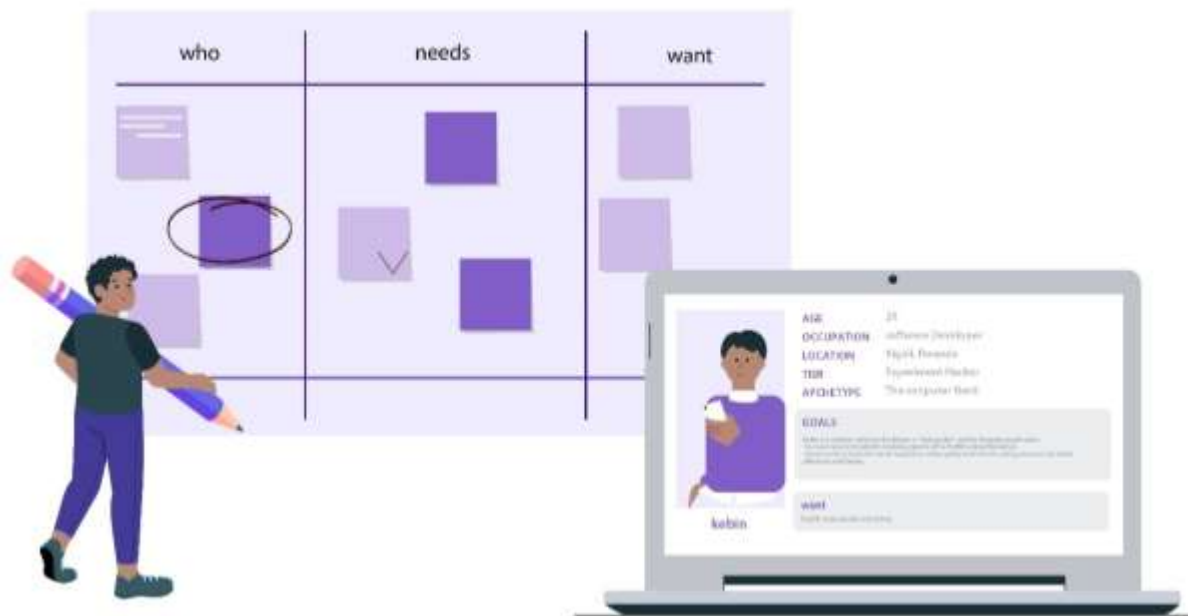
MODULE CODE AND TITLE: SWDUX301 UI/UX DESIGN

Learning Outcome 1: Analyse User Experience

Learning Outcome 2: Define the user

Learning Outcome 3: Design Mockup

Learning Outcome 1: Analyse User Experience



Indicative contents

1.1 Description of UX Research

1.2 Analysis of Brand Identity

1.3 Definition of Tasks

1.4 Identification of end user pain point

Key Competencies for Learning Outcome 1: Analyse User Experience

Knowledge	Skills	Attitudes
<ul style="list-style-type: none">• Differentiation of User interface and User experience• Description of UX research• Description of brand identity• Differentiation of wireframe, mockup and prototype in UX design.• Identification of user stories, personas and storyboards• Identification of end-users Pain points	<ul style="list-style-type: none">• Creating a UX research finding report• Organising data based on customer needs• Selecting the best tool based on research• Conducting analysis and System Documentation	<ul style="list-style-type: none">• Being Critical thinker• Having Attention to details.• Being flexible• Being rapid during work execution• Being Quick learner to achieve the required result• Having team spirit while working with others.



Duration: 20 hrs

Learning outcome 1 objectives:



By the end of the learning outcome, the trainees will be able to:

1. Describe correctly key concepts that are used in UX Research
2. Select appropriately the best tool based on research methods and approaches.
3. Perform properly UX Research based on user requirement
4. Analyse effectively Brand identity based on project branding assets.
5. Define Clearly task based on research findings.
6. Identify correctly End user pain points based on research findings.



Resources

Equipment	Tools	Materials
<ul style="list-style-type: none">• Computer• Projector• White-Board	<ul style="list-style-type: none">• Figma• Trello• Adobe XD	<ul style="list-style-type: none">• Markers• Internet• Papers• Pencils• Pens



Advance Preparation:

Before delivering this learning outcome, you are recommended to:

- Avail sample of UX data
- Prepared sample brand image to be used as didactic materials
- Avail all possible research tools, materials and equipment used for description.
- Have an organised case study to gather data.
- Prepared figma environment.



Indicative content 1.1: Description of UX research



Duration: 5 hrs



Theoretical Activity 1.1.1: Description of UX Research



Notes to the trainer:

- Trainer may use small group for describing UX research.
- Avail the sample of data as didactic materials.
- Avail flipchart.
- Have the images/video as didactic materials.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the Activity and Ask Trainees to answer the following questions

- I. What do you understand by the term?
 - User experience
 - User Interface
 - UX research
 - Research finding
- II. List out the UX research methods and approaches.
- III. What are the benefits of UX research?

Step 2: Ask any trainee to write answers provided on flipchart

Step 3: Ask trainees to discuss the provided answer and choose correct answers.

Step 4: Present your findings to the class or colleague

Step 5: Provide expert view for more clarification

Step 6: Address any questions or concerns about the Activity.

Step 7: Ask trainees to read key reading 1.1.1. in trainee manual



Points to Remember

- There are three UX Research Methods and Approaches that are used while carrying out research for gathering data in UX design which are: Qualitative, Quantitative and Mixed UX Research Methods. Depends on the kind of data needed, designer can select one of that UX Research methods that can fit with his/her research.
- There are different Benefits gained and enjoyed by UX designer from performing UX Research for gaining supportive data that can guide you to suitable and attractive

products, such as: Better products Involving your potential customers, gain a lot of knowledge on what the customers prefer, fight against user pain points, help the overall improvement of the product.



Practical Activity 1.1.2: Perform UX Research.



Notes to the trainer

- This activity should take place on field out of the class where Trainer may use small group for performing UX research.
- Avail the research topic as Activity and own methods to be used for each group created.
- Avail the Equipment needed to perform research for each method.
- Involve trainees to analyse the research findings.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the Activity and ask trainees to read the task described below:

As UX/UI Designer, you are requested to find the case study that can give you the data related to the given topic, select research methods, organise materials and equipment seems to be needed accordingly, prepare and analyse research finding report and Create document that summarizes conducted research. Document should have at least 5 pages.

Step 2: Explain the task and provide clear work instruction

Step 3: Demonstrate how to gather data using different methods. While demonstrating, explain the steps to perform UX Analysis

Step 4: Ask trainees to perform the given task and monitor the procedures.

Step 5: Ask trainees to perform the task provided in application of learning 1.1.

Step 6: Ask trainees to read key reading 1.1.2.



Points to Remember

- All data gathered from UX research are classified into two types of UX Data which are: Quantitative data and Qualitative data, where Quantitative data are statistical data and Qualitative data are insights that can be observed but not computed.
- It is necessary to analyse data After conducting research so, there are main steps to pass through while carrying out UX Analysis which are:
 1. Identification of user issues
 2. Organisation of UX data
 3. Looking for recurring issues
 4. Prioritisation of fixes
 5. Sharing of findings and recommendations
 6. Building and testing new features



Application of learning 1.1.

In my technical secondary there are different classes in secondary ordinary level, after passing the national examination NESA release the marks and orient the trainees to different trade in level 3 on your school but many students prefer to choose some sections in general basic education in my school, so as UX Designer, you are required to do the research by using any research method and find out data resulting on that.

Checklist

SN	Criteria	Indicators	Yes	No
1	UX Research method is properly applied based on required finding	Case study is available to conduct research		
		UX research method is selected		
2	Use of UX research method is conducted	Tools are selected		
		Data are collected		
		Findings of results are obtained		



Indicative content 1.2: Analysis of Brand Identity



Duration: 5hrs



Theoretical Activity 1.2.1: Identification of Brand and Brand Identity



Notes to the trainer:

- Trainer may use small group for identifying Brand, brand persona and Brand Identity.
- Avail the sample brand image to be used as didactic materials.
- Avail flipchart.
- For better delivering of this content, Avail video as didactic materials to show different between brand, brand identity and brand persona.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the Activity and Ask Trainees to answer to the following questions

1. What do you understand by the following term?
 - I. Brand
 - II. Brand competition
 - III. Brand identity
2. What are the examples of brand identity?
3. Give three (3) main types of brand competition

Step 2: Asks any trainee to write answers provided on flipchart

Step 3: Ask trainees to present their findings and choose correct answers.

Step 4: Provide expert view and address any questions or concerns.

Step 5: Read key readings 1.2.1 for more clarification



Points to Remember

- The terms Brand Competition Explain the conflict between the companies offering the similar line of products or services in the same target market and to the same target audience with the goal to have the higher market share, increased revenues, huge profits, and growth as compared to the marketplace. it runs in **three Types** which are Direct, Indirect Competition and Replacement Competition.
- The term Brand identity encompasses all the visual and tangible elements that represent a brand and distinguish it from others. some key examples are: Color

Palette, Typography, Packaging, Values and Tagline (A short phrase that summarizes the brand's message).

- The main principles of branding design are integration, Relationship, Strategy, innovate solutions and Reinvention.



Practical Activity 1.2.2: Analyse Brand Identity



Notes to the trainer

- The trainer may invite trainees to access internet in the groups for Downloading brand and brand identity images.
- Avail computer connected to the internet.
- Avail projector and its peripherals.
- Avail any browser for accessing web.



Key steps:

While delivering this activity, pass through the following steps:

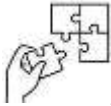
- Step 1:** Introduce the activity and ask trainees to read the task described below:
As a UX designer, you are asked to access internet to download any company's brand to analyse and suggest brand identity of the company according to its functionality. The task should be done in group.
- Step 2:** Ask trainees to read key reading 1.2.2.
- Step 3:** Explain the task and provide clear work instruction
- Step 4:** Demonstrate how to download any brand identity. While demonstrating, explain the steps by step to analyse a brand identity
- Step 5:** Ask trainees to perform the given task and monitor the procedures.
- Step 6:** Ask trainees to present downloaded images as well as what analysis on it.
- Step 7:** Provide feedback to trainees according to their presentation.
- Step 8:** Ask trainees to perform the task provided in application of learning 1.2



Points to Remember

- **Steps to download image from web**

1. Open a web browser
2. Find an image to download
3. Right click on the image
4. Click Save Image As
5. Select a save location.
6. Click Save.



Application of learning 1.2.

BA is a company located in near your school with the mission of offering different online services for people, but it does not have the brand identity, which clearly indicates its services. As a UX designer, you are requested to Suggest and Create a brand identity that will present the company.

Checklist

Criteria	Indicators	Yes	No
Brand identity is properly analysed based on project branding assets	Tools are selected		
	Brand identity is defined		
	Brand identity element are defined		
	Brand identity is reflect to project offering		
	Brand identity is analysed		



Indicative content 1.3: Definition of Tasks



Duration: 5 hrs



Theoretical Activity 1.3.1: Description of tasks



Notes to the trainer:

- Trainer may use small group for describing task and task analysis, user story, persona, story board and to find creative ways to solve UX problems and to implement attractive designs.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to answer the following questions

- I. What do you understand the term task analysis?
- II. What is the different between user story and user personas?
- III. What are the pathways to carry out task analysis?

Step 2: Ask trainees to note their findings on paper or flipchart

Step 3: Ask trainees to present their findings to the whole class

Step 4: Provide expert view and address any questions or concerns.

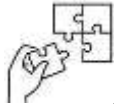
Step 5: Ask trainees to read key reading 1.3.1, for more clarification.



Points to Remember

- There are the key terms used in task analysis for designing interface such as User Story as a brief, textual description of a user's need, written from the user's perspective that Focuses on what the user wants to achieve. And User Personas as a Detailed, data-driven profiles of fictional users representing different user types also Focuses on who the users are, their goals, and their pain points.
- We have the pathways to achieve task analysis for ensuring best and attractive design such as Understand product specifications and user psychology, interpret data and qualitative feedback, describe user stories, personas, and storyboards, Define the right interaction model and evaluate its success, identify wireframes and prototypes around customer needs, Find creative ways to solve UX problems (e.g. usability, findability), Work with UI designers to implement attractive designs, Communicate

design ideas and prototypes to developers.



Application of learning 1.3.

Observe the women shop system as case study, what is the user story can fit with system? What is the user persona will be present the system? Based on the usability and functionality, suggest the element that will be available on home page of wireframe? What are the stylistic symbols that will represent properly the mockup? Share to the expert for gaining view of how the system will be appropriate.

Checklist

Main points to check	Yes	No
Product is identified		
Data id interpreted		
User story is identified		
User persona is identified		
Wireframe is identified		
Mockup is identified		
Usability is found		
Design ideas is shared		
Task is defined		



Indicative content 1.4: Identification of end user pain point



Duration: 5 hrs



Theoretical Activity 1.4.1: Description of end user pain point



Notes to the trainer:

- Trainer may use small group for describing end user pain point.
- Use flipchart for addressing the ideas from trainees.



Key steps:

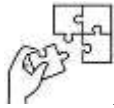
While delivering this activity, pass through the following steps:

- Step 1:** Introduce the activity and ask trainees to answer the following questions
- I. What is the meant by the term end user pain point
 - II. What are the effect of pain points on the users?
 - III. Identify the different levels of end user pain point?
- Step 2:** Asks any trainee to write answers provided on flipchart
- Step 3:** Ask trainees to present their findings and choose correct answers.
- Step 4:** Provide expert view and address any questions or concerns.
- Step 5:** Read key readings 1.4.1 for more clarification.



Points to Remember

- There are different effects of the pain points at customer level such as incur a cost to users, result for a time cost and also financial cost to the user.
- All kind of those problems the customers meet are classified in **three levels of pain points** such as Interaction-level pain point, Journey-level pain point and Relationship-level pain point.



Application of learning 1.4.

You are part of a product development team for a healthcare mobile app designed to improve posture and alleviate physical pain caused by long hours of desk work. Your task is to identify available type of end-user pain points, understand their effects, and brainstorm solutions to relieve these pains. Addressing these pain points will significantly improve the user experience, boost user satisfaction, and lead to higher adoption and engagement with the app.

Checklist:

Main points to check	Yes	No
Task is identified		
End user pain point is defined		
Types of pain point are stated		
Effects of paint point are identified		



Learning outcome 1 end assessment

Written assessment

I. Cycle the letter corresponding to the correct answer:

1. UX is:

- A. User xampp
- B. User unknown
- C. User experience

Answer:

C. User experience

2. UI is:

- A. User Internet
- B. User Intermediate
- C. User Interface

Answer:

C. User Interface

3. Which of the following is a step in UX analysis?

- A) Identification of user issues
- B) Creation of marketing strategies
- C) Budget planning
- D) Hiring new staff

Answer:

A) Identification of user issues

4. Which type of brand competition involves companies offering similar products to the same target market?

- A) Indirect Competition
- B) Replacement Competition
- C) Direct Competition
- D) Strategic Competition

Answer:

C) Direct Competition

5. Choose the correct answer of Steps of UI/UX Design Process:

- a) Product definition, Design
- b) Design, Research, Product definition
- c) Product definition, Research, Analysis, Design, Validation

Answer:

c) Product definition, Research, Analysis, Design, Validation

6. According to the bellow statement answer **True** or **False**

- a. Three Levels of Pain Points are plan, observation and Relationship. **False**
- b. Pain points are problems that occur at the different levels of the customer

experience. **True**

Practical assessment

You have been tasked with designing a recipe sharing website called "CookBook". The website aims to provide a platform for users to share their favourite recipes, discover new ones, and connect with other cooking enthusiasts.

Please perform a UX research using other similar existing websites, develop a low fidelity wireframe that will be used to show the structure and layout of the website to be developed, and lastly show the interaction between features using a low fidelity prototype.

Here are the key features and functionality you should include in that low fidelity wireframe and prototype:

1. Homepage:

- A clean and visually appealing layout with a prominent search bar at the top.
- A featured recipe section showcasing popular recipes.
- Categories or tags to help users navigate through different recipe types.
- A login/signup button for new users.

2. Recipe Listing Page:

- A grid-style layout displaying multiple recipe cards.
- Each recipe card should include the recipe name, a brief description, and an image thumbnail.
- Sorting and filtering options to allow users to refine their search (e.g., sort by popularity, rating, or cuisine type).

3. Recipe Detail Page:

- A larger image of the recipe.
- The recipe name, description, and cooking time prominently displayed.
- A list of ingredients required.
- Step-by-step instructions for preparing the recipe.
- User ratings and reviews section.

4. User Profile Page:

- User's profile picture and basic information.
- A section displaying the user's uploaded recipes.
- The option to edit or delete their recipes.
- User's favourite recipes or a bookmarking feature.

5. Upload Recipe Page:

- A form to input recipe details, including the recipe name, description, cooking time, ingredients, and instructions.
- An option to upload a recipe image.
- Tags or categories to categorise the recipe.

Tools	Figma, Trello, Adobe XD
Equipment	Computer ,Projector .White-Board
Materials/ Consumables	Markers, internet, Papers, Pens, Pencils

Check list

Assessable Outcome	Assessment criteria	Indicators	Observation		Marks
			Yes	No	
1. Analyse user experience	Tasks is properly defined based on research findings	Task is defined			5
	Brand identity is properly analyzed based on project branding assets	Tools are selected			5
		Materials are selected			5

		Equipment are selected			5
		Brand identity is analysed			5
	End user pain points are appropriately applied based on research findings	User pain points are applied			5
	UX research is properly performed based on user requirements and project goals	UX research is performed			5
TOTAL MARKS					35

END



Further information to the trainer

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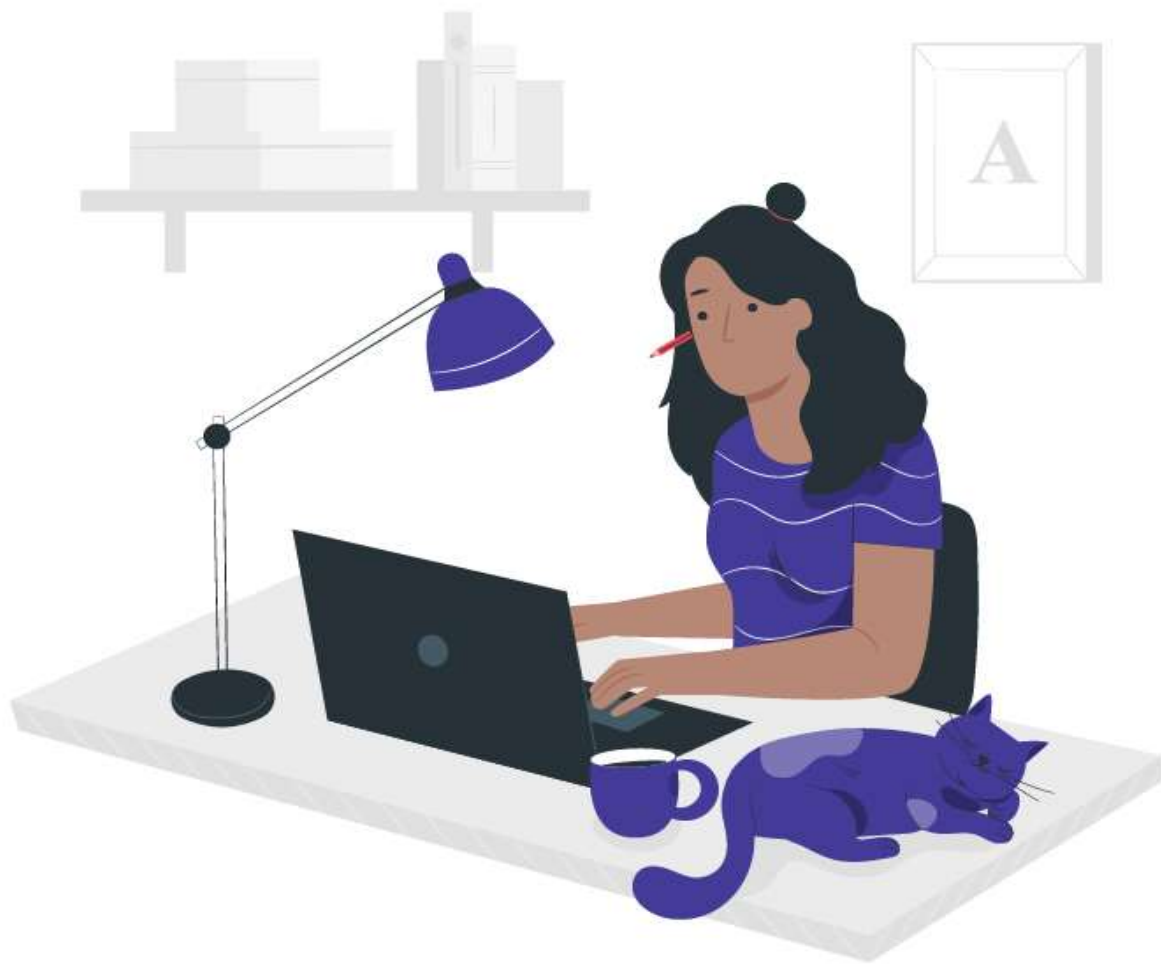
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Learning Outcome 2: Define the user



Indicative contents

1.1 Creation of user story

1.2 Identification of user personas

1.3 Creation of user journey

Key Competencies for Learning Outcome 2: Define the user

Knowledge	Skills	Attitudes
<ul style="list-style-type: none">• Description of user story based on user requirements• Identification of user persona based on user stories• Description of user journey based on user stories	<ul style="list-style-type: none">• Creating user story• Analysing of best user persona• Conducting UX analysis• Mapping of user journey based on user stories.	<ul style="list-style-type: none">• Having Attention to details while carrying out task• Having good communication and collaboration to others.• Being rapid during work execution• Being Quick learner to achieve the required result• Having team spirit while working with others.• Being Honesty in your daily activities.



Duration: 30 hrs

Learning outcome 2 objectives:



By the end of the learning outcome, the trainees will be able to:

1. Describe Clearly User story based on user requirements
2. Identify properly User personas based on system Functionality.
3. Create correctly user story based on user requirements.
4. Prepare properly user persona based on system functionality.
5. Map appropriately user journey based on User role.
6. Prepare properly UX brief based on research findings



Resources

Equipment

- Computer
- Projector
- White-Board

Tools

- Figma
- Trello
- Adobe XD
- Word
- Excel
- Google form

Materials

- Markers
- Internet
- Papers, Pencils, Pens



Advance Preparation:

Before delivering this learning outcome, you are recommended to:

- Have a well prepared computer lab with installed MS office.
- Avail internet access for running trello and figma.
- Avail valid and updated figma account to access platform.
- prepare videos and images as didactic materials.



Indicative content 2.1: Creation of user story



Duration: 10 hrs



Theoretical Activity 2.1.1: identification of user story



Notes to the trainer:

- Trainer may use small group for explaining user story that always reflects to the user requirement



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to answer the following questions

- I. What do you understand by the term user story?
- II. What are characteristics of user story?
- III. List out three (3) benefit of user story

Step 2: Asks any trainee to write answers provided on flipchart/paper.

Step 3: Ask trainees to present their findings to the whole class

Step 4: Provide expert view and address any questions or concerns.

Step 5: Ask trainees to read key reading 2.1.1, for more clarification.



Points to Remember

- The document from customer that guide developer to point on what user wants is called user story. It provides several benefits like Focus on User Needs, Enhanced Communication, Improves Estimation and Planning, Customer-Centric Development and Prioritization of user Value.
- There characteristics of user story to ensure that the document is complete which covered in acronym called INVEST (independent, Negotiable, valuable, Estimable, Small and Testable).



Practical Activity 2.1.2: Create user story



Notes to the trainer

- Trainer may use small group for explaining how to create a user story
- Avail a computer lab with internet access where trainees should use running browser to access figma platform to create draft for designing.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees read the task described below:

As UX Designer, you are asked to access internet and figma platform to create user story of any implemented system.

Step 2: For more clarification, ask trainees to read key reading 2.1.2.

Step 3: Explain the task and provide clear work instruction.

Step 4: Demonstrate how to use figma platform and create user story of any implemented system. While demonstrating, explain the steps.

Step 5: Asks trainees to use figma platform to create user story and monitor the procedures.

Step 6: Verify whether the drafts are clearly used to create user story.

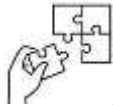
Step 7: Ask trainees to perform the task provided in application of learning 2.1



Points to Remember

Using the figma platform allows you to access different figma tools used to create different design that reflects to the final system. Here are the steps to use for creating the user story:

- Open browser
- Access figma.com in URL
- Authenticating with user credentials
- Select draft for accessing the canvas with different tools to be used in design.



Application of learning 2.1.

A business man with making international trading of electronic devices needs to create a global system of how all the customers can gain and also create the request to the needed accessories. For achieving all of the wishes, he needs to meet with the expert ones who really knows to develops the system that can already meet with the wishes to achieve a certain goal. As UX designer, develop sample of user story that can share the user needs to developer.

Checklist

SN	Criteria	Indicators	Yes	No
1	User story is appropriately identified based on project requirement	User role is defined		
		System Goals are defined		
		Benefits are identified		
		User story is reflected to user needs.		
		Tools are selected		
2	User story is well created	User story is developed		
		User story is created		



Indicative content 2.2: Identification of user personas



Duration: 10 hrs



Theoretical Activity 2.2.1: Description of user persona



Notes to the trainer:

- Trainer may use small group for describing user persona that always reflects to the user story and system functionalities.



Key steps:

While delivering this activity, pass through the following steps

- Step 1:** Introduce the activity and ask trainees to answer to the following questions
- I. What do you understand by the term user persona?
 - II. Give five (5) characteristics of user persona.
 - III. What are Benefit of User personas in design process?
- Step 2:** Asks any trainee to write answers provided on flipchart/papers.
- Step 3:** Ask trainees to present their findings to the whole class.
- Step 4:** Provide expert view and address any questions or concerns.
- Step 5:** Ask trainees to read key reading 2.2.1, for more clarification.



Points to Remember

- User Personas are essential part for designing good interface that Focus on who the users are, their goals, and their pain points.
- There are different benefits of user persona in designing process like to give developer a point of reference for who we're designing for, it gives project stakeholders something tangible to consider.
- Some characteristics of user persona are Fictional representations, Demographic and psychographic details, Realistic and relatable, Goal-oriented and Contextual information.



Practical Activity 2.2.2: Create user persona



Notes to the trainer

- Trainer may use small group for explaining steps use to create a user persona that always reflects to the user persona and system functionalities.



Key steps:

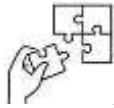
While delivering this activity, pass through the following steps:

- Step 1:** Introduce the activity and ask trainees to read to the following questions
As UX Designer, you are asked to access internet and figma platform to create user persona of baby boom store shop.
- Step 2:** For more clarification, ask trainees to read key reading 2.2.2.
- Step 3:** Explain the task and provide clear work instruction.
- Step 4:** Demonstrate how to use figma platform. While demonstrating, explain the steps to use draft of figma platform.
- Step 5:** Asks trainees to use figma platform to create a user persona and monitor the procedures.
- Step 6:** Verify whether the drafts are clearly used to create user persona.
- Step 7:** Ask trainees to perform the task provided in application of learning 2.2



Points to Remember

- While using the figma platform to allow you to access different figma tools used in opening browser and access figma.com in URL, authenticating with user credentials and Open Figma and create a new file or project
- Steps of creating user personas are :
 - Step 1: Research your users.
 - Step 2: Identify audience segments.
 - Step 3: Gather background on your personas.
 - Step 4: Start filling in a persona template.
 - Step 5: Write a brief for your personas.



Application of learning 2.2.

Suppose that you are a professional UX designer working on the redesign of a mobile banking app for a leading financial institution. To ensure that the app provides an exceptional user experience, you are required to create a user persona to guide the design and development process.

Checklist

SN	Criteria	Indicators	Yes	No
1	User persona is appropriately identified based on project requirement	User persona is identified		
		User persona is defined		
		Enthusiasts are defined		
		Access is identified		
		User story is reflected to user needs.		
2	User persona is well created	Tools are selected		
		User persona is developed		
		User story is created		



Indicative content 2.3: Creation of user journey



Duration: 10 hrs



Theoretical Activity 2.3.1: Description of user journey



Notes to the trainer:

- Trainer may use small group for explaining user journey that always reflects to the system functionalities.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to answer the following questions:

- I. What do you understand about the term user journey?
- II. What are the element of user journey map?
- III. List three (3) types of user journey map

Step 2: Asks any trainee to write answers provided on flipchart/papers.

Step 3: Ask trainees to present their findings to the whole class.

Step 4: Provide expert view and address any questions or concerns.

Step 5: Ask trainees to read key reading 2.3.1, for more clarification.



Points to Remember

- User journey map are essential tools for customer and developers to build clear path to show how the user will use the interface efficiently. **There are some commonly types of user journey map** which are UX, sales and customer Experience journey map.
- The **elements of user journey map** are Persona, Scenario, Stages of the journey, User actions, User emotions and thoughts, Opportunities and Internal ownership.



Practical Activity 2.3.2: Create user journey map



Notes to the trainer

- Trainer may avail computer with internet access and valid figma account.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to read the task described below:

As UX Designer, you are asked to go to the computer lab to create the sample of user journey map of any implemented system.

Step 2: For more clarification, ask trainees to read key reading 2.3.2.

Step 3: Explain the task and provide clear work instruction.

Step 4: Demonstrate how to create user journey map using figma. While demonstrating, explain the steps to create it.

Step 5: Verify whether figma draft are used in creating user journey map.

Step 6: Ask trainees to perform the task provided in application of learning 2.3.



Points to Remember

- While using the figma platform to allow you to access different figma tools used in opening browser and access figma.com in URL, authenticating with user credentials and Open Figma and create a new file or project

- **The steps to create the user journey map are:**

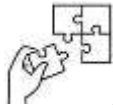
Step 1: Define user personas and goals.

Step 2: Identify customer touch points.

Step 3: Visualize journey phases.

Step 4: Capture user actions and responses.

Step 5: Validate and iterate



Application of learning 2.3.

You have been hired by your school to create user journey map for students MIS to always access at any time in the checking their marks attendance, as UX designer create user journey map to show the path to access student's marks.

Checklist

SN	Criteria	Indicators	Yes	No
1	User journey map is appropriately identified based on project requirement	User journey is identified		
		User journey is defined		
		Enthusiasts are defined		
		Access is identified		
		User journey is reflected to user needs.		
2	User journey is well created	Tools are selected		
		User journey is developed		
		User journey is created		



Learning outcome 2 end assessment

Written assessment

Q1. Answer by using true or false to the following statements:/2 marks per each

- a) Steps of a UX designer's journey are five.
- b) User journey helps users to interact with a product and allows designers to see a product from a user's point of view.
- c) User story and user scenario are not important during the design process.

Q2. Complete the following sentences with the following word: **creative brief, user personas, story.** 4marks

- a) The written definition of a UX Designer's first visualisation of the first wireframes and prototypes is
- b) is a document used to outline the strategy of a creative project?

Answers

Q1. a) False b) True c) False

Q2. a) user story b) Creative brief

Practical assessment

You are a UX designer working for an e-commerce company. Your task is to improve the online shopping experience for a specific target audience. In this case, your target audience is outdoor enthusiasts who are looking to buy camping gear from your website. The goal is to create a user-centred design that caters to their needs and preferences.

Assessment Steps:

User Persona Creation (15 minutes):

- Begin by creating a user persona include information such as demographics, goals, pain points, and motivations. Be as detailed as possible. You can use tools like online persona generators or templates to assist you.
- Name your persona and provide a brief narrative that describes their background, preferences, and behaviours. This persona will represent your target user for the design project.

User Story Creation (30 minutes):

- Based on the user persona you've created, generate a set of user stories that address their needs and goals. User stories should be concise and follow the "As a [user type], I want [an action] so that [benefit/value]" format.

- Create a minimum of three user stories that cover various aspects of the outdoor enthusiast's shopping experience on the website.

User Journey Mapping (45 minutes):

- Select one of the user stories you've created and develop a user journey map for that particular scenario. Start from the moment the user decides to shop for camping gear and continue until they complete a purchase.
- Include key touchpoints, actions, emotions, and pain points the user might encounter along the journey. Use a visual representation, such as a timeline, to illustrate the steps in the journey.

Presentation and Evaluation (10 minutes):

- Present your user persona, the user stories you've created, and the user journey map to your instructor or evaluator.
- Explain how the user persona guided your understanding of the target audience and how the user stories and journey map align with the persona's needs and preferences.

Tools	<ul style="list-style-type: none"> ● Figma
Equipment	<ul style="list-style-type: none"> ● Computer
Materials/ Consumables	<ul style="list-style-type: none"> ● Papers ● Pens ● Pencils

Checklist:

Assessable Outcome	Assessment criteria	Indicators	Observation		Marks
			Yes	No	
2. Define the user	User story is properly defined based on user requirements	User story is defined			5
		User story is created			5
		Brand competitions are identified			5
	User personas are properly defined based on user stories	Brand personas are identified			5
	User journey is properly mapped based on user stories	User journey is done			5
		UX brief is prepared			5
	TOTAL MARKS				30

END



Further information to the trainer

- Aaker, D.A. (1996). *Building Strong brand*. New York: The Free Press.
- Alan Cooper and Robert Reinmann. (2004). *About face 2.0 the Essentials of interaction design*. Boston: Wiley Publishing, Inc.
- Beaudouin-Lafon. (2000). *An Interaction Model for designing post*. ACM Press.
- Beaudouin-Lafon. (2001). *Interaction Techniques for Overlapping Windows. Proceedings of ACM Symposium on User Interface Software and technology*. ACM Press. In Press.
- Brechin. (2002). *Reconciling Market Segments and Personas*. Toronto, Canada. : Cooper Newsletter .
- Cohn, M. (2004). *User Stories Applied: For Agile Software Development*. Boston: AddisonWesley.
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- Kanji, F. (2021). *UX RESEARCH & TESTING TECHNIQUES* . Toronto: Akendi international Experience.
- Poppendieck, Mary, and Tom Poppendieck. (2007). *Implementing Lean Software Development*. Boston: Addison-Wesley.
- Poulson, D., Ashby, M., Richardson. (1996). *Handbook on User-Centred Design for Assistive Technology*. Brussels-Luxembourg: TIDE EC-DG XIII.

Learning Outcome 3: Design Mockup



wireframe



Mockup



Prototype

Indicative contents

3.1: Description of key concepts

3.2: Use of Figma prototyping tool

3.3: Sketch wireframe

3.4: Sketch mockup

3.5: Presentation of Prototype

Key Competencies for Learning Outcome 3: Design Mockup

Knowledge	Skills	Attitudes
<ul style="list-style-type: none">• Description of important principles of user experience design.• Description of UX design process key phases• Differentiation of wireframe, mockup and prototype• Identification of design thinking process• Description of different part of figma interface	<ul style="list-style-type: none">• Using Figma prototyping tools• Sketching Wireframe• Sketching Mockup• Presenting prototype• Setting up files• Managing components, layers and color palettes• Testing figma using figma mirror	<ul style="list-style-type: none">• Having Attention to details while carrying out task• Having good communication and collaboration to others.• Being rapid during work execution• Being Quick learner to achieve the required result• Having team spirit while working with others.• Being Honesty in your daily activities.



Duration: 100 hrs

Learning outcome 3 objectives:



By the end of the learning outcome, the trainees will be able to:

1. Identify properly Design tools based on project requirement
2. Identify clearly UX design process key phases based on system requirements.
3. Describe clearly important principles of user experience design based on user story.
4. Setting up properly files according to the selected design tool.
5. Describe clearly wireframe based on user needs.
6. Manage appropriately components with layers based on project requirement.
7. Sketch concisely Wireframe based on user stories.
8. Design properly Mockup in line with user needs.
9. Present properly Prototype based on designed mockup.



Resources

Equipment

- Computer
- Projector

Tools

- Figma
- Trello
- Adobe XD

Materials

- Markers
- Internet
- Pencils Pens



Advance Preparation:

Before delivering this learning outcome, you are recommended to:

- Have a well prepared computer lab with installed MS office.
- Avail internet access for running figma.
- Avail updated figma account to access platform.
- prepare videos and images for wireframe, mockup and prototype as didactic materials.



Indicative content 3.1: Use of Figma prototyping tool



Duration: 20 hrs



Theoretical Activity 3.1.1: Description of Key Concepts



Notes to the trainer:

While delivering this content, a small group can be used for describing the term the key concept used in sketching wireframe and designing mockup.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to answer to the following questions:

- i. What do you understand by the following terms used in design of mockup?
 - User interface
 - User Experiences
 - Wireframe
 - Mockup
 - Prototype
 - User-centered design
 - Usability
 - 3-Clicks rule
 - Feedback
- ii. What are the importance of UX/UI design the software development?
- iii. What are the important principles of user experience design?
- iv. Give five (5) stages found in design thinking process.
- v. What are components of information architecture

Step 2: Asks any trainee to write answers provided on flipchart/papers.

Step 3: Ask trainees to present their findings to the whole class.

Step 4: Provide expert view and address any questions or concerns.

Step 5: Ask trainees to read key reading 1.1.1, 1.3.1&3.1.1 for more clarification.



Points to Remember

- In UX design, there are important principles to follow which are Meet the users' needs, know where you are in the design process, have a clear hierarchy, Usability first, less is more and use simple language.
- There are five stages found in design thinking process which are Empathize, define, ideate, prototype and test.



Practical Activity 3.1.2: Use Figma prototyping tool



Notes to the trainer

- Avail a computer lab with internet access and any updated browser where trainees should create a new draft for figma file as new project and start to access canvas and different frames, layers and component through created project.
- Avail valid figma account for trainees



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to do the task described below:

As a UX designer, you are asked to go into the computer lab to create a new draft for figma file as new project and start to access canvas, different frames, layers and component through created project.

Step 2: For more clarification, ask trainees to read key reading 3.1.2.

Step 3: Explain the task and provide clear work instruction.

Step 4: Demonstrate how you can to create a new draft for figma file as new project. While demonstrating, explain the steps to create a new draft for figma file as new project.

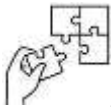
Step 5: Asks trainees to Navigate through the created figma interface and monitor the procedures.

Step 6: Verify whether figma draft files and tools are used are clearly.



Points to Remember

- Navigating through a created figma file project to allow you to explore the project structure, access frame, pallet and components effectively.
- **Know the steps to access through a created figma file project**
 - Open browser
 - Access figma.com in URL
 - Authenticating with user credentials
 - Select Design file and draft for accessing the canvas with different tools.



Application of learning 3.1.

As a UI/UX Designer joining a figma project for the first time, you're asked for familiarizing, personalising and Explore yourself with the working of figma dashboard especially for different component, layers and frame of figma draft used in designing user interface.

Solution:

Checklist /Solution for application

SN	Criteria	Indicators	Yes	No
1	Use of figma prototyping tool are appropriately identified based on project requirement	Figma platform is accessed		
		Figma platform is accessed		
		User account is created		
		Files and assets is accessed		
		Layers and components are accessed		
2	Figma prototyping tool are well used	Tools are selected		
		Prototyping tools are accessed		
		Figma prototyping tool is used		



Indicative content 3.2: Sketch wireframe



Duration: 30 hrs



Theoretical Activity 3.2.1: Description of wireframe



Notes to the trainer:

- While delivering this content, a small group can be used for describing the key concept used in sketching wireframe.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to answer to the following questions:

- What do you understand by the term wireframe?
- Differentiate low fidelity and high fidelity wireframe
- What are the tools used to create wireframe?

Step 2: Asks any trainee to write answers provided on flipchart/papers

Step 3: Ask trainees to present their findings to the whole class.

Step 4: Provide expert view and address any questions or concerns.

Step 5: Ask trainees to read key reading 3.2.1, for more clarification.



Points to Remember

- Difference between **low fidelity** and **high fidelity wireframe**.
- Know the main steps to follow which are Identify Key Screens, Sketch the Layout, Include Basic Elements and Simplify Content for obeying rule of sketching wireframe.



Practical Activity 3.2.2: Sketch wireframe



Notes to the trainer

- Avail valid figma account for trainees or installed figma set up according to trainee preferences.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to read the task described below:

As a UX designer, you are asked to go to computer lab to create a new draft for figma file as project to sketch the wireframe for any home page of the system that will allow users to login with their credentials.

Step 2: For more clarification, ask trainees to read key reading 3.2.2.

Step 3: Explain the task and provide clear work instruction.

Step 4: Demonstrate how you can to create a new draft for figma file as new project. While demonstrating, explain the steps to create a new draft for figma file as new project and sketch wireframe of login page.

Step 5: Asks trainees to Navigate through the figma interface and monitor the procedures.

Step 6: Verify whether figma draft files and tools are used are clearly.



Points to Remember

- Navigating through a created figma file project to allow you to explore the project structure, access frame, pallet and components effectively.



Application of learning 3.2:

Scenario: You need to create a wireframe for a small local business's landing page. The page should include a logo, a header with a menu, a hero image, and a contact section with an email address and phone number.

Checklist

SN	Criteria	Indicators	Yes	No
1	Design Tools are appropriately identified based on project requirement	Tools are selected		
		User story is created		
		User persona is created		
2	Wireframe are concisely designed based on user stories	Tools are selected		
		New draft figma is created		
		Wireframe is sketched		



Indicative content 3.3: Sketch mockup



Duration: 30 hrs



Theoretical Activity 3.3.1: Description of mockup



Notes to the trainer:

- While delivering this content, a small group can be used for describing the key concept used in sketching mockup.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to answer to the following questions:

- What do you mean by the term mockup?
- Differentiate wireframe and mockup?
- What is the relationship between wireframe and mockup?
- What are additional visual details that can be applied to a such mockup?

Step 2: Engage trainees in presentation of their findings

Step 3: Provides expert view and clarifies ideas by using didactic materials.

Step 4: Address any questions or concerns.



Points to Remember

- The designed mockup must have the wireframe that reflect on as their relationship among them.
- There is main different between wireframe and mockup that is the stylistic symbols and color found in mockup designing.
- Know some additional visual details that can be applied to mockup.



Practical Activity 3.3.2: Sketch mockup



Notes to the trainer

- Avail a computer lab with internet access and any updated browser where trainees should create a new draft for figma file as new project and start to figma tools for sketching mockup.
- Avail valid figma account for trainees or installed figma set up according to trainee preferences, any sketched wireframe and the image that can guide them as didactic materials



Key steps:

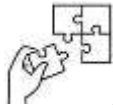
While delivering this activity, pass through the following steps:

- Step 1:** Introduce the activity and ask trainees to do the task described below:
As a UX designer, you are asked to go to computer lab to create a new draft for figma file as project to sketch the wireframe and mockup reflect to the sketched wireframe for any login page of the system that will allow users to login with their credentials.
- Step 2:** For more clarification, ask trainees to read key reading 2.3.2.
- Step 3:** Explain the task and provide clear work instruction.
- Step 4:** Demonstrate how you can to create a new draft for figma file as new project. While demonstrating, explain the steps to create a new draft for figma file as new project and sketch wireframe of login page.
- Step 5:** Asks trainees to Navigate through the figma interface and monitor the procedures.
- Step 6:** Verify whether figma draft files and tools are used are clearly.



Points to Remember

- Navigating through a created figma file project to allow you to explore the project structure, access frame, pallet and components effectively.
- Convert wireframe into mockup by adding different color and stylistic graphs according to the wireframe.



Application of learning 3.3.

As UI/UX designer You are asked to create a mockup for a small local business's home page. The page should include a logo, a header with a menu, a hero image, and a contact section with an email address and phone number.

Checklist

SN	Criteria	Indicators	Yes	No
1	Design Tools are appropriately identified based on project requirement	Tools are selected		
		User story is created		
		User persona is created		
2	Wireframe are concisely designed based on user stories	Tools are selected		
		New draft figma is created		
		Wireframe is sketched		
3	Mockup is are concisely designed based on user stories	Figma prototyping tool is used		
		Files are set		
		Layers are managed		
		Components are created		
		Mockup design is applied		



Indicative content 3.4: Presentation of Prototype



Duration: 30 hrs



Theoretical Activity 3.4.1: Description of prototype presentation



Notes to the trainer:

- While delivering this content, a small group can be used for describing the key concept used in prototype and prototyping as the wireframe product.



Key steps:

While delivering this activity, pass through the following steps:

Step 1: Introduce the activity and ask trainees to answer to the following questions:

- I. Differentiate prototype and prototyping?
- II. What is the important of presenting prototype?

Step 2: Asks any trainee to write answers provided on flipchart/papers.

Step 3: Ask trainees to present their findings to the whole class.

Step 4: Provide expert view and address any questions or concerns.

Step 5: Ask trainees to read key reading 3.3.2, for more clarification.



Points to Remember

- Know prototype as an essentially simulated version of a product.
- Know that prototypes come in various forms.
- Advantages to test how the final product will look like before launching, that allows to make or adding any change to product.



Practical Activity 3.3.2 Present prototype



Notes to the trainer

- Avail valid figma account for trainees or installed figma set up according to trainee preferences.
- Avail any sketched wireframe and mockup
- Avail the image that can guide them as didactic materials.



Key steps:

While delivering this activity, pass through the following steps:

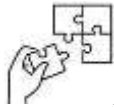
- Step 1:** Introduce the activity and ask trainees to read the task described below:
As a UI/UX designer, you are required to go to computer lab to create figma file as new project to sketch the wireframe and mockup reflect to the sketched wireframe for any home page of the system that will allow users to login with their credentials and then present it using figma prototyping tool.
- Step 2:** For more clarification, ask trainees to read key reading 3.3.2.
- Step 3:** Explain the task and provide clear work instruction.
- Step 4:** Demonstrate how you can to create a new draft for figma file as new project. While demonstrating, explain the steps to create a new draft for figma file as new project and sketch wireframe of login page, convert it to mockup by adding stylistic features and how to present using figma prototyping tool.
- Step 5:** Asks trainees to Navigate through the figma interface and monitor the procedures.
- Step 6:** Verify whether figma draft files and tools are used are clearly.



Points to Remember

- Through a created figma file project allows you to explore the project structure, access frame, pallet and components effectively.
- The steps to present a created figma file project using figma prototyping tool.
- Select figma mirror prototyping tool
- Select frame and start to sketch wireframe according to the desired form

- convert wireframe into mockup by adding different color and stylistic graphs according to the wireframe.
- Provide interactivity between designed mockup
- Present prototype using figma prototyping tool for checking project final look.



Application of learning 3.4 present prototype

As a UX designer working with a client to create a new e-commerce website. After developing a prototype, you need to pitch the design concept to your client where Presentation Approach Are Sharing your screen or use a projector to display the prototype on a large screen and Walk through the prototype, highlighting key features and user interactions.

Checklist

SN	Criteria	Indicators	Yes	No
1	Design Tools are appropriately identified based on project requirement	Tools are selected		
		User story is created		
		User persona is created		
		User journey is created		
2	Wireframe and mockup are concisely designed based on user stories	Tools are selected		
		Wireframe is sketched		
		Mockup is designed		
		Figma prototyping tool is used		
		Interactivity to the design is added		
		Prototype design is presented		



Learning outcome 3 end assessment

Theoretical assessment

I. Circle the correct answer

- 1) Which of the following is a type of user interface that uses visual elements like windows, icons, and buttons?
- a) Command Line Interface (CLI)
 - b) Graphical User Interface (GUI)
 - c) Menu-driven User Interface
 - d) Voice User Interface (VUI)

answer:

b) Graphical User Interface (GUI)

- 2) Which user interface involves interaction through typing text commands?
- a) Graphical User Interface (GUI)
 - b) Command Line Interface (CLI)
 - c) Touch User Interface
 - d) Natural Language User Interface

answer:

b) Command Line Interface (CLI)

- 3) Which factor is NOT part of Peter Morville's User Experience Honeycomb?
- a) Useful
 - b) Credible
 - c) Expensive
 - d) Findable

answer:

c) Expensive

- 4) What is the purpose of a creative brief in a project?
- a) To outline the strategy of a creative project
 - b) To create user personas
 - c) To define budget planning
 - d) To hire new staff

answer:

a) To outline the strategy of a creative project

- 5) What is the primary goal of usability in UI/UX design?
- a) To attract new users
 - b) To ensure the product is easy to use
 - c) To create a visually appealing design
 - d) To reduce development costs

answer:

b) To ensure the product is easy to use

- 6) Which of the following is a characteristic of a high-fidelity wireframe?

- a) Sketches on paper
- b) Detailed and may include simple workflows and interactions
- c) Basic outline without much detail
- d) Only includes text and no visual elements

answer:

- b) Detailed and may include simple workflows and interactions

7) **A mockup typically includes all the following visual details EXCEPT:**

- a) Colors, styles, graphics, and typography
- b) Styled buttons and text
- c) Navigation graphics
- d) User interaction feedback

answer:

- d) User interaction feedback

8) **What is the primary goal of a prototype?**

- a) To outline the basic structure of a page
- b) To test and validate ideas before final development
- c) To create a static model of the page
- d) To organize information within digital products

answer:

- b) To test and validate ideas before final development

9) **What does the 3-click rule suggest?**

- a) Users should receive feedback within 3 seconds
- b) No page should take more than 3 clicks to access
- c) Usability tests should be completed in 3 stages
- d) Every page must have at least 3 clickable links

Answer:

- b) No page should take more than 3 clicks to access

10) **Answer by true if a statement is correct and false if is wrong**

- a) In the UX design process, the analysis phase involves creating user personas.
- b) A prototype is an interactive simulation of a product designed to test the user experience.

Answer

- a) True
- b) True

Practical assessment

ABC CO is an NGO with the mission of promoting education in Rwanda especially in TVET schools, their office is located in GASABO District and they have organised a competition of the innovative project for students from different TVET schools. But they have a problem of collecting the student's applications from every school. They suggest having an MIS that will facilitate the students to apply and find more information about the competition.

So, they want to hire a user experience (UX) designer that will create a mockup and then present the prototype for that MIS. As a UX designer, you are requested to create a mockup that will be used by the web application developers to create a website that will perform that task.

The system will have the way all users can make authentication. A student can make an application to be reviewed by administrators. Administrators will be able to view and make decisions on the student applications in order to notify the accepted and rejected projects. The students will be able to know whether s/he has been selected or not.

The system should be easy to use and adhere consistency in designs.

This work is supposed to be done in 8 hours.

Tools	<ul style="list-style-type: none">• Figma
Equipment	<ul style="list-style-type: none">• Computer
Materials/ Consumables	<ul style="list-style-type: none">• Papers, Pens, Pencils

Check list

Assessable Outcome	Assessment criteria	Indicators	Observation		Marks
			Yes	No	
3.Design Mockup	Design tools are properly identified based on project requirement	Tools are selected			5
	Wireframe is concisely designed based on user stories	Wireframe is sketched			5
	Mockup is properly designed in line with client needs, project requirements, user needs & brand identity	Figma prototyping tool is used			5
		Files are set			5
		Layers are managed			5
		Application design are applied			5
		Components are created			5
		Mockup design is applied			5
		Test design using Figma Mirror is done			5
	Prototype is properly presented based on designed mockup	Prototype is created			5
		Interactivity to the design is added			5
		Prototype design presented			5

	TOTAL MARKS		60
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END



Further information to the trainer

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