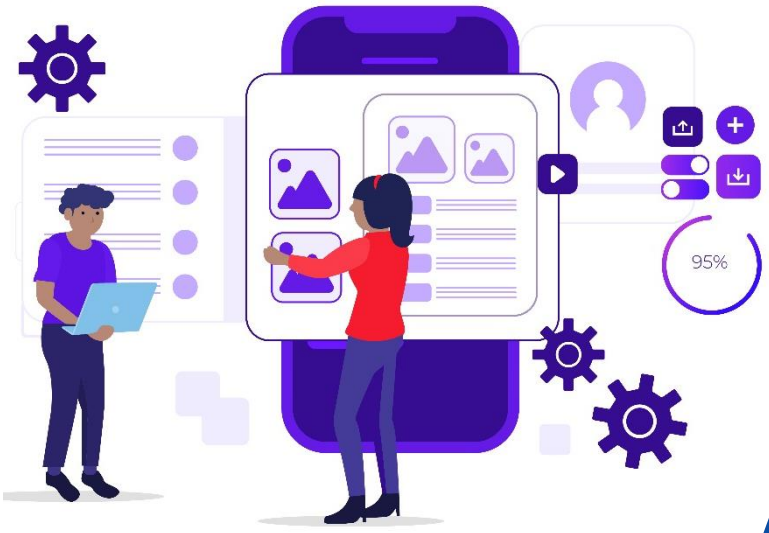
RQF LEVEL 3



SWDUX301

SOFTWARE DEVELOPMENT

UI/UX Design

TRAINEE'S MANUAL

October, 2024

UI/UX DESIGN

KOICA Korea International Cooperation Agency

TQUM TVET Quality Management Project

2024

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KOICA through TQUM Project

TABLE OF CONTENT

ACRONYMS

CBT: Competency Based Training

CLI: Command line interface

GUI: Graphical user interface

INVEST: Independent Negotiable Valuable Estimable Small Testable

RQF: Rwanda Qualification Framework

SMART: Specific Measurable Achievable Realistic Time-bound

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 trainee's manual includes all the knowledge and skills required in software development specifically for the module of **" 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.

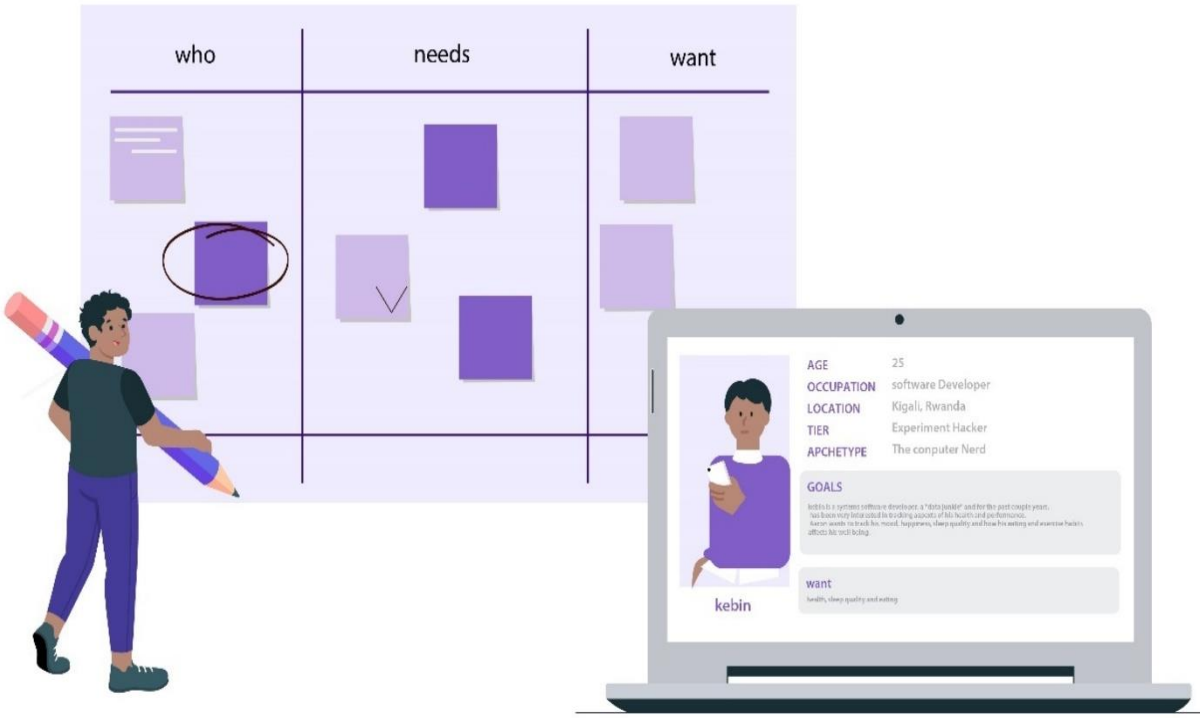
The trainee's manual is organized into Learning Outcomes, which is broken down into indicative content that includes both theoretical and practical activities. It provides detailed information on the key competencies required for each learning outcome, along with the objectives to be achieved.

As a trainee, you will start by addressing questions related to the activities, which are designed to foster critical thinking and guide you towards practical applications in the labor market. The manual also provides essential information, including learning hours, required materials, and key tasks to complete throughout the learning process.

All activities included in this training manual are designed to facilitate both individual and group work. After completing the activities, you will conduct a formative assessment, referred to as the end learning outcome assessment. Ensure that you thoroughly review the key readings 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


who
needs
want
AGE
25
OCCUPATION
software Developer
LOCATION
Kigali, Rwanda
TIER
Experiment Hacker
APCHETYPE
The conputer Nerd
GOALS
want
kebin

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
• 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	• Creating a UX research finding report • Organising data based on customer needs • Selecting the best tool based on research • Conducting analysis and System Documentation	• 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
• Computer • Projector • White-Board	• Figma • Trello • Adobe XD	• Markers • Internet • Papers • Pencils • Pens

Indicative content 1.1: Description of UX Research

Duration: 5 hrs

Theoretical Activity 1.1.1: Description of UX Research

Tasks:

1: Answer the following questions related to the description of UX research

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?

2: Provide the answer for the asked questions and write them on papers/flipcharts.

3: Present your findings to the trainer or your colleagues.

4: For more clarification, read the key readings 1.1.1.and ask questions to the trainer where necessary.

Key readings 1.1.1.: Description of UX research

- **User:** Is a person who uses or operates something
- **Experience:** Experience refers to conscious events in general, more specifically to perceptions, or to the practical knowledge and familiarity that is produced by these conscious processes.
- **User experience (UX)** refers to the user's journey when interacting with a product or service.
- **UX design** is the process of creating products or services that provide meaningful experiences for users, involving many different areas of product development including branding, usability, function, and design.

What is the user interface (UI)?

Interface: point where two systems, subjects, organizations, etc meet and interact

- **The user interface (UI):** is the point of human-computer interaction and communication in a device. This can include display screens, keyboards, a mouse and the appearance of a desktop. It is also the way through which a user interacts with an application or a website.
- **The various types of user interfaces include:**

✓ graphical user interface (GUI)

- ✓ command line interface (CLI)
- ✓ menu-driven user interface
- ✓ touch user interface
- ✓ voice user interface (VUI)
- ✓ form-based user interface
- ✓ natural language user interface

- **User experience (UX) research** is the systematic study of understanding how users interact with a product, service, or system.it focuses on gathering insights about users 'behaviors, needs, and motivations through various observation techniques and feedback methodologies. Simply **User Experience research or UX research** is the study of learning what end users of a system or product need and want, then employing those insights to enhance the design process for products, services or software.

The primary goal of UX research is to inform the design process by ensuring that products are user-centered and meet the actual needs of end-users.

- **UX Research Methods and Approaches**
  - ✓ **Qualitative UX Research Method**

- **User Interviews:** User Interviews are the bread and butter of qualitative UX research methods. When designing user-centered solutions, there is no substitute for speaking with real users. While user interviews can take many forms and can integrate multiple methods (such as card sorting and concept testing), the quality of any interview is determined by the quality of its questions.

When planning user interviews, extreme care must be taken to develop questions that are most likely to make interviewees comfortable and actively engaged. If you have ever conducted user interviews before, you will appreciate how difficult this can be in formal settings.

Closed-ended question (Avoid)	Open-ended question (Encourage)
Do you do this task/action often?	Why do you do this task/action?
Is your job difficult?	What makes your job more/less difficult?
Are there people supporting you?	When do you turn to others for help?

- **Diary Studies:** The basic premise of a diary study is to ask potential users to record their experiences in a diary, which is then collected by researchers upon completion
  - ✓ **Quantitative UX Research Methods**
- **User Surveys:** is a set of questions you use to collect data from your target audience. Surveys are an established research method adopted by myriad disciplines to collect hard data from groups of people. Data is then analysed by statistical methods to generate "significant" insights that are unlikely to be due to chance. The power to discern signal from noise is the product of the size of the survey sample: The more people you ask, the more confident the statistics will be.

Like user interviews, the quality of a user survey relies on recruiting the right people and asking the right questions. But unlike interviews, these questions need to be formatted in a way that can be answered using a sliding scale or multiple choice.

- **Click Tracking :** Click Tracking is a specialized UX research method that lets designers observe and analyze everywhere users click or tap when visiting a website.
- **A/B Testing:** A/B Testing is a data-driven way to determine which of two (or more) options is the most effective at achieving a specific goal. A/B testing is used in a variety of industries, especially in digital marketing, where optimizing conversion rates is of critical importance. In user experience design, A/B testing can be used to optimize specific aspects of an existing solution, or to determine which of two designs to pursue.
    - ✓ **Mixed UX Research Methods**
- **Heuristic Evaluation :** is a thorough assessment of a product's user interface, and its purpose is to detect usability issues that may occur when users interact with a product and identify ways to resolve them.
- **Card Sorting:** is a UX research method used to discover how people understand and categorize information. In a card sort, participants group ideas or information written on cards into different categories in a way that makes sense to them. You can use virtual cards, pieces of paper, or an online card sorting tool.
- **Usability Testing:** refers to evaluating a product or service by testing it with representative users. Typically, during a test, participants will try to complete typical tasks while observers watch, listen and take notes.

- **The benefits of UX research:**

Better products Involving your potential customers directly helps you gain a lot of knowledge on what the customers prefer, what their pain points are, and what will help the overall improvement of the product.

- ✓ Improved user satisfaction
- ✓ Reduced development cost
- ✓ Increased conversion rates
- ✓ Informed decision making
- ✓ Enhance product quality
- ✓ Competitive advantage
- ✓ Risk mitigation

- **Steps of UX Analysis**

- ✓ Identification of user issues
- ✓ Organization of UX data
- ✓ Looking for recurring issues
- ✓ Prioritization of fixes
- ✓ Sharing of findings and recommendations

- ✓ Building and testing new features

- **UX researcher role and responsibilities**

The role of a UX researcher is to uncover user behaviors, needs and motivations to make products, services and websites more natural and enjoyable for users.
The role and responsibilities of a UX researcher may vary depending on the organization, project, and team structure.

- ✓ **However, there are some common roles and responsibilities associated with UX researchers:**

- **Conducting User Research:** UX researchers are responsible for planning, conducting, and analyzing user research activities to gain insights into user needs, behaviors, and preferences.
- **Defining Research Objectives:** UX researchers collaborate with stakeholders, designers, and product managers to define research goals and objectives that align with the project's objectives.
- **Planning and Executing Research Studies:** UX researchers design research studies, including selecting appropriate research methods, recruiting participants, creating interview or survey protocols, and organizing usability testing sessions.
- **Data Collection and Analysis:** UX researchers collect data through various research methods and analyze the findings to derive meaningful insights. They use qualitative and quantitative analysis techniques to identify patterns, themes, and trends in user behavior and feedback.
- **Generating Personas and User Profiles:** Based on research findings, UX researchers develop personas or user profiles that represent target user groups.
- **Collaboration with Design and Development Teams:** UX researchers work closely with designers, developers, and other stakeholders to translate research insights into actionable design recommendations.
- **Communicating Research Findings:** UX researchers are responsible for effectively communicating research findings to stakeholders, including presenting insights, data visualizations, and actionable recommendations. They use storytelling techniques to convey the user experience perspective and influence decision-making.

Practical Activity 1.1.2: Perform UX Research.

Task:

1: Read the key readings 1.1.1&1.1.2 and then after, 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, organize materials and equipment seems to be needed accordingly, prepare and analyze research finding report and Create document that summarizes conducted research, Document should have at least 5 pages.

2: Provide the answers to the asked question on papers

3: Present your findings to the trainer and whole the class

4: Ask any clarification to the trainer if any.

Key readings 1.1.2.: Perform UX Research

UX research methods includes two main types:

Quantitative (statistical data) and qualitative (insights that can be observed but not computed), done through observation techniques, task analysis, and Other feedback methodologies.

- ✓ **Quantitative UX Research:** Quantitative UX data refers to numerical data that can be measured and analyzed to understand how users interact with a product or service. This type of data can be used to inform the design and development of a product, and to identify areas for improvement.

  Some examples of quantitative UX data include:

- **Website traffic:** This includes data on the number of visitors to a website, and can be used to understand the popularity of a website and to identify patterns in user behavior.
- **User engagement metrics:** This includes data on how users interact with a website or application, such as click-through rates, time on site, and bounce rate. These metrics can be used to understand user engagement and to identify areas of the website or application that are underperforming.
- **User task completion rates:** This includes data on the percentage of users who successfully complete a specific task, such as filling out a form, making a purchase, or watching a video. This data can be used to understand user success rates and to identify areas for improvement.
- **Error rates:** This includes data on the percentage of users who encounter errors while using a website or application. Error rate data can be used to understand how users are affected by errors and to identify areas of the website or application that need to be improved to prevent errors.

- **A/B or Multivariate Testing**: This includes data on the results of testing different versions of a website or application with different users, and can be used to identify which version is more successful.
- **Surveys:** Surveys can be used to gather quantitative data on user satisfaction, understanding, and feedback, and can be used to understand user opinions and preferences.

These data can be collected through tools such as analytics software, user testing, or surveys, and can be analyzed to identify patterns and trends.

✓ **Qualitative UX Research**

Qualitative UX data refers to data that is collected through non-numerical means, such as user interviews, surveys, and user testing. It provides insight into users' needs, preferences, and attitudes, and can be used to understand users' motivations, pain points, and feedback on a product or service.

- **User interviews:** This includes one-on-one or group interviews with users to gather their feedback and opinions on a product or service. User interviews can be used to understand user needs and preferences, and to identify areas for improvement.
- **Surveys:** Surveys can be used to gather qualitative data on user satisfaction, understanding, and feedback, and can be used to understand user opinions and preferences.
- **User testing:** This includes observing users as they interact with a product or service, and can be used to understand how users navigate and use a product or service, and to identify areas of confusion or difficulty.
- **Focus groups:** This includes a group of users that are brought together to discuss and give feedback on a product or service. Focus groups can be used to gather feedback from a group of users and to identify common patterns and themes among them.
- **Diary studies:** This includes asking users to document their thoughts and experiences with a product or service over a period of time. Diary studies can be used to understand how users interact with a product or service over time, and to identify patterns and trends.
- **Card sorting:** This includes asking users to organize a set of items into groups that make sense to them, and can be used to understand how users think about and categorize information.

These data can be collected through various methods such as interviews, surveys, observations, and user testing, and can be analyzed through techniques such as thematic analysis and content analysis to identify patterns and themes.

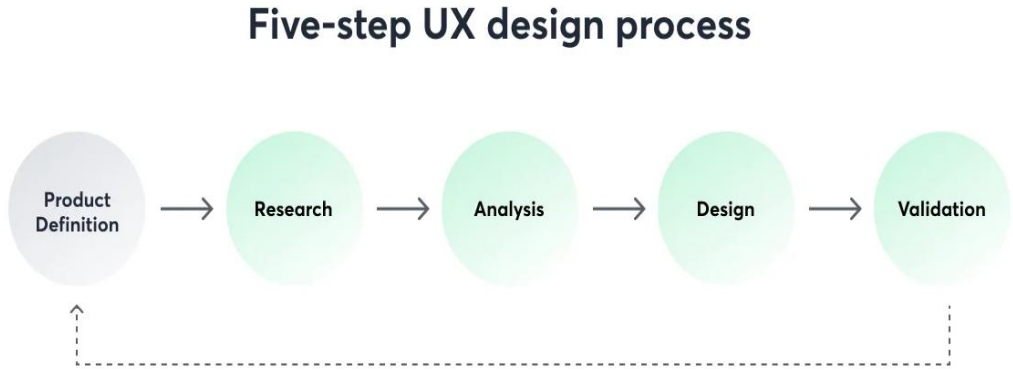
- **Steps of UX Analysis**

✓ Identification of user issues
✓ Organization of UX data
✓ Looking for recurring issues

- ✓ Prioritization of fixes
- ✓ Sharing of findings and recommendations
- ✓ Building and testing new features

Steps of UI/UX Design Process

The UI/UX Design Process is a methodology that, if followed, allows you to polish your user interfaces to be the best one possible for your business. Like with any process, there are some fundamental steps/phases that can be considered for the design process.



1. Product Definition

Product Definition is the first phase involved in the user design process. The team responsible for this will collect the user requirements based on their business environment.

2. Research

The research is the most crucial element for a designer. The designing team studies how the present system works for the current client proposal.

3. Analysis

In this phase, make use of the things collected in the Research phase. With the help of the information received, create hypothetical personas, and experience maps.

4. Design

In the design process, we finally end up giving life to ideas that we have collected in the above three steps. It's time to work on the final graphics now.

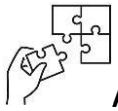
5. Validation or Testing

"**Usability testing** is the practice of putting designs to the test with real people to gather information about the user experience – how difficult or easy it is to use the product."

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.

Indicative content 1.2: Analysis of Brand Identity

Duration: 5hrs

Theoretical Activity 1.2.1: Identification of Brand and Brand Identity

Tasks:

1: Answer the following questions:

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

2: Provide the answer for the asked questions and write them on papers/flipcharts.
3: Present your findings to the trainer or your colleagues.
4: Ask any clarifications to the trainer
5: For more clarification, read the key readings 1.2.1. and ask questions to the trainer where necessary.

Key readings 1.2.1.: Identification of Brand and Brand Identity

- **A brand** is a name, term, design, symbol or any other feature that distinguishes one seller's goods or service from those of other sellers.

- **Brand Identity:** The brand identity is the unique set of brand associations that represent what a brand stands for and promises to its customers. Brand identity is the visible elements of a brand, such as color, design, and logo, that identify and distinguish the brand in consumers' minds. Identification of Brand Competition

- **Brand Competition** can be defined as 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 contemporary brand in the

marketplace. Knowing and astutely understanding the competitors of your brand is one of the crucial steps to plan and execute a successful business strategy.

- **Types of Brand Competition:**
  - ✓ **Direct Competition:** Direct Competition is faced by the brand from the other companies in the market that offer the similar lines of products having comparable features and benefits plus to the same target market and target customers.
  - ✓ **Indirect Competition:** The component of indirect competition occurs when the two brands offer the similar line of products but nature, attributes, and features are quite different from each other plus the business strategy and goals are also different from one another.
  - ✓ **Replacement Competition**: Replacement competition is the tricky (deceiving) situation when your customer indulges in the purchase of another product instead of choosing your product to which he has been committed for a longer period of time.

- **Identification of Brand Personas**
  - ✓ A **brand persona** is a literal depiction of a brand as a person, giving a face to the abstract characteristics, values, and voice that businesses cultivate. It involves constructing an imaginary person, complete with a fictitious name, hobbies, likes and dislikes—much like how a writer might create a character profile.
  - ✓ **Brand Personas** are fictional (imagined) characters, which you create based upon your research in order to represent the different user types that might use your service, product, site, or brand in a similar way. Personas help designers to create understanding and empathy with the end users.
  - ✓ **User personas** help designers shape product strategy and accompany during the usability testing sessions.

Brand persona vs. brand identity

Brand persona and brand identity both define what makes a brand unique through visual attributes. At the same time, brand identity is a wholesale term that covers all of the assets that contribute to a brand's representation. A brand identity typically includes a logo, website, typography style and color scheme. In this way, the brand persona is another visual asset that fits within the brand identity.

- **How to create a brand persona?**

Now that we understand what a brand persona is in relation to other branding elements, let's discuss how you go about constructing one for your business.

- ✓ **Start by establishing a brand:** you need to have your brand established before you can create a brand persona. It can be all too easy to feel like you have a grasp on your brand, but this must be articulated in a clear strategy.

- ✓ **Build out your brand's personality traits:** As useful as strategy is, it tends to feel more calculated than personal. This is where a brand personality comes into play: you want to brainstorm human traits to go along with your business.
- ✓ **Evaluate the brand's relationship with the customer:** Because a brand is shaped by the customer's perception of the business, the brand and the customer are inexorably intertwined. This is why, to get the most accurate persona, you must consider your brand in terms of its relationship with the customer.
- ✓ **Build out a persona profile:** Now, it is time to take all of these attributes and formalize them into an actual persona. This is where you move from abstract traits to concrete details.

- **Principles of branding design:**

To design brand is not designing as usual, there are principles to follow that guide brand design. so,
There are several Brand design principles that are Understanding the brand, Integration, Relationships, Strategy, Innovative solutions and also Reinvention.

- ✓ **Integration** Even though they emerged as two different disciplines, design and branding need to be integrated if you want them to be effective. A product cannot do without its brand image, and brand image is nothing without design.

Understanding the brand, the more you know, the better you are as an expert. This is true when it comes to the design process. If a designer does not understand your company's core values, your deepest origins and the mission of your product or service, the design process and the end-product might fall short of a great story behind it.

- ✓ **Relationships** People respond to emotion. If they cannot connect with a brand or make a relationship happen, you know it will not work for either side. It is a designer's responsibility to make an emotion-evoking design, similarly to what Apple has done with their products with which their users feel a deep connection. IPhones, and that is something that would not work without a good branding design.
- ✓ **Strategy** What many startups and small companies do not realize is that they need to employ a branding strategy early on, from the very founding of the company.
- ✓ **Innovative solutions**

In a world where almost every product and every service are the same as another, it is hard not to have similar ideas and use the same concepts for certain work. The designers, however, need to be there to make things different from one another and offer innovative design solutions that will leave their competition behind.

- ✓ **Reinvention.**

Many companies today use their branding options to reinvent the brand and yet retain the same image in the eyes of their audience.

- Do not overdesign. When one starts the creative process, it is very difficult not to get carried away and do more than required, even to the point of ruining the entire concept.

- Making a difference. Many people forget about this important thing, but this principle relies on being different from everyone else. No matter if you work on the local or global market, you have got to have what it takes to step out and say.

Practical Activity 1.2.2: Analyse Brand Identity

Task:

1: With referring to the key reading 1.2.2, you are requested to do 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.

2: Ask trainer a help if any while downloading the image.
3: Present the analysis of downloaded images to the trainer or colleague.
4: ask for more clarification if any. And receive feedback from trainer according to the downloaded images.

Key readings 1.2.2.: Analysis of Brand Identity

- **Brand Identity**: The brand identity is the unique set of brand associations that represent what a brand stands for and promises to its customers. Or Brand identity is the visible elements of a brand, such as colour, design, and logo, that identify and distinguish the brand in consumers' minds.
- The process of **Brand Identity** starts with understanding and in depth analysis of the brand, the nature of the business, short-term and long-term goals, product and services offered, how does the business wants to portray (represent, describe) itself in the market, values, and fundamentals that have formulated the business.
- To analyse brand identity, look at the visual and verbal elements that create the brand's image and personality. Consider factors such as the logo, colour scheme, typography, messaging, and overall brand experience as the element of brand identity Element of brand identity

- **Steps to download image from web**

Open a web browser. You can use Safari, Google Chrome, Microsoft Edge, or another browser.

Find an image to download. Navigate to any website, or search Google for a specific photo.

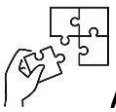
- ✓ In a Google Search, tap Images below the search bar to see the images associated with your search. If it isn't already open to the original source of the image, click it to navigate there now. Right click on the image. A pop-up menu will open.
- ✓ On Macs without a right-click mouse or trackpad, hold Control and click to control-click. You can also click the trackpad with two fingers.
- ✓ Click Save Image as…. Make sure the image you're saving is either a JPEG or PNG file. Otherwise, you may have trouble opening the image.
- ✓ Select a save location. In most cases, this will be set as your Downloads folder. To change it, select a new destination. You can also enter a new name for the image. Click Save. The image will be saved to your computer

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.
- **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 Kigali city with the mission of offering different online services, 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.

Indicative content 1.3: Definition of Tasks

Duration: 5 hrs

Theoretical Activity 1.3.1: Description of tasks

Tasks:

1: You are requested 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?

2: Read the key readings 1.3.1 for more understanding the activities

3: Present your findings to the trainer or colleagues

4: Ask for clarification to the trainer if any.

Key readings 1.3.1.: Description of tasks

- **In UX (User Experience) design**, understanding both product specifications and user psychology is essential for creating a product that provides a positive and satisfying user experience.
- **A user story** is a concise description of a user's goal or task and the expected.
- **A user persona** is a fictional representation of a target user or a group of users.
- **A storyboard** is a visual representation of a user's journey or interaction with a product or service.
- **Wireframes** are basic, simplified, and often static visual representations of a user interface. They are like blueprints for a digital product and are used to outline the structure, layout, and placement of interface elements without focusing on visual design details.
- **Prototypes in UX** (User Experience) design are interactive and functional models of a digital product or interface. They are used to simulate how the final product will work, allowing designers to test and validate design concepts, interactions, and user flows before the actual development phase.
- **Interpret data and qualitative feedback**

✓ **Collect Relevant Data:**

Gather quantitative data from various sources such as user analytics, A/B testing results, and heat maps. Ensure that the data is aligned with your design goals and objectives.

✓ **Analyze User Behavior:**

Study user behavior data to understand how users interact with your product. Look for patterns, trends, and anomalies in metrics like click-through rates, bounce rates, conversion rates, and user flow analysis.

- ✓ **Identify Pain Points:**

Pay attention to areas where users drop off or exhibit frustration in the data. These can be indicators of usability issues or design problems that need to be addressed.

Segment Your Data:

Segment your data by user demographics, devices, or other relevant factors. This can help you understand how different user groups experience your product and tailor your design accordingly.

- ✓ **Benchmark and Set Goals:**

Compare your data to industry benchmarks or your own past performance. Set specific design improvement goals based on what you observe in the data.

- ✓ **Quantify Improvements:**

Assess the impact of design changes on key performance metrics. Determine whether the changes have had a positive or negative effect and adjust your design accordingly.

Interpreting Qualitative Feedback:

- ✓ **Gather Feedback from Users:**

Collect qualitative feedback through methods such as user interviews, surveys, usability testing, and customer support interactions. Make sure to reach out to a representative sample of your user base.

- ✓ **Categorize Feedback:**

Organize qualitative feedback into categories or themes. Look for recurring issues or patterns in user comments and observations.

Understand User Perspectives:

Put yourself in the users' shoes and try to understand their perspective. What challenges are they facing, and what are their expectations and preferences?

- ✓ **Prioritize Feedback:**

Prioritize feedback based on its impact on the user experience. Address critical issues first, but also consider feedback that can enhance the overall experience.

- ✓ **Validate Feedback:**

Cross-reference qualitative feedback with quantitative data. If users report issues that are reflected in the data, it reinforces the importance of addressing those issues.

- ✓ **Iterate on Design:**

Use qualitative feedback as input for design improvements. It can inform changes to the user interface, functionality, content, and overall user experience.

- ✓ **Test Changes:**

After making design modifications based on feedback, conduct further usability testing to verify whether the changes have resolved issues and improved the user experience.

- ✓ **Communicate Changes:**

Keep users and stakeholders informed about the design changes made in response to their feedback. Transparency can build trust and show that you value user input.

- ✓ **Measure Impact:**

Use quantitative data to measure the impact of design changes on user behavior. Did the changes lead to better engagement or conversions? Adjust your design as needed.
creative ways to solve UX problems:

- ✓ **User Research and Empathy:**

Immerse yourself in the user's perspective through user research. Conduct interviews, surveys, and observations to understand their needs, pain points, and motivations. Empathy is the foundation for creative problem-solving in UX.

- ✓ **Design Thinking:**

Apply the principles of design thinking, a human-centered approach to problem-solving. This involves stages such as empathize, define, ideate, prototype, and test. It encourages creative solutions by focusing on user needs.

- ✓ **Mind Mapping and Brainstorming:**

Use mind mapping techniques and brainstorming sessions to generate a wide range of ideas. Encourage cross-functional collaboration to bring diverse perspectives into the problem-solving process.

- ✓ **User Stories and Personas:**

Create user stories and personas to better understand your target audience. This helps in building a more user-centered approach to solving UX problems.

- ✓ **Rapid Prototyping:**

Build quick and low-fidelity prototypes to explore design ideas and test them with users. Rapid prototyping allows you to iterate and experiment with different solutions.

- ✓ **A/B Testing and User Testing:**

Conduct A/B testing to compare two or more versions of a design element and determine which one performs better. Regular user testing sessions provide invaluable feedback on the user experience.

- ✓ **Gamification:**

Incorporate elements of gamification to make tasks more engaging and fun for users. This can motivate them to interact with your product more and solve specific problems.

- ✓ **Heuristic Evaluation:**

Apply Jakob Nielsen's usability heuristics to identify usability problems systematically. This method helps uncover issues in the user interface that may not be immediately apparent.

- ✓ **Data Analysis:**

Use data analytics to identify patterns, trends, and user behaviors within your product. Insights from data can lead to creative solutions that align with user needs.

- ✓ **Micro interactions:**

Pay attention to small, delightful details in the user interface, known as micro interactions. These can add an element of surprise and enhance the overall user experience.

- ✓ **Creative Storytelling:**

Present design solutions in a creative and compelling way. Use storytelling to explain how the new design solves user problems and improves their experience.

- ✓ **Out-of-the-Box Inspiration:**

Look beyond your industry for inspiration. Creative problem-solving often involves borrowing ideas and techniques from unrelated fields and adapting them to your UX challenges.

- ✓ **Reverse Engineering:**

Analyze successful user experiences, both within and outside your industry. Reverse-engineer what makes these experiences work and apply those principles to your designs.

- ✓ **Collaboration and Feedback:**

Seek feedback from team members, stakeholders, and users throughout the design process. Collaborative discussions can lead to creative insights and solutions.

- ✓ **Iteration and Continuous Improvement:**

Embrace the concept of continuous improvement. UX design is an ongoing process, and creative problem-solving should be iterative, with an openness to making improvements as you go.

- **Defining the right interaction model and evaluating its success in UI/UX design can be broken down into five key steps:**

✓ **Define Objectives and User Needs:**

Start by clearly defining the goals and objectives of your project. What specific user behaviors or actions are you trying to support or encourage? Understand your users' needs, preferences, and pain points through user research.

✓ **Design the Interaction Model:**

Create an interaction model that aligns with your objectives. This involves designing the structure, layout, and user flows of the interface. Consider information architecture, navigation, and the placement of interactive elements.

✓ **Usability Testing and Feedback:**

Conduct usability testing with real users to gather feedback on the interaction model's effectiveness. Observe how users interact with the interface and listen to their feedback regarding usability, efficiency, and overall experience.

✓ **Iterate and Refine:**

Based on the feedback and insights gathered from usability testing, iterate on the interaction model. Make improvements to address usability issues, optimize the user flow, and enhance the overall user experience.

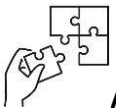
✓ **Measure Success Metrics:**

After implementing the refined interaction model, measure its success using relevant metrics. Track user engagement, conversion rates, user satisfaction, and other key performance indicators to assess whether the interaction model is achieving its goals.

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 appropriates.

Indicative content 1.4: Identification of end user pain point

Duration: 5 hrs

Theoretical Activity 1.4.1: Description of end user pain point

Tasks:

1: Answer the following questions

I. What is the meant by the term end user pain point
II. What is the effect of pain points on the users?
III. Identify the different levels of end user pain point?

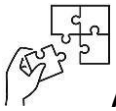
2: Provide the answers of the asked questions on papers
4: Present your findings to the trainer or whole class.
5: Ask clarification if any to the trainer.
6: For more clarification read the key readings 1.4.1

Key readings 1.4.1.: Description of end user pain point

- **End user pain points in UX** refer to the difficulties, frustrations, or challenges that users may encounter when interacting with a product or service
- **Three Levels of Pain Points**
  - ✓ **Interaction-level pain point:** is a specific challenge or frustration that occurs during a single interaction or touchpoint within the customer journey.
    - **Interaction-Level Pain Point:** The "Confirm Transfer" Button Placement
    - **Description:** In this scenario, the user has filled out all the necessary fields, including the recipient's account information and the transfer amount. However, when it comes time to confirm the transfer, they struggle to find the "Confirm" button. This is an interaction-level pain point, as it occurs during a specific interaction within the app.
  - ✓ **Journey-level pain point:** A user places an order and does not receive it for months.
  - ✓ **Relationship-level pain point:** A relationship-level pain point refers to challenges or frustrations that arise from the overall relationship between the customer and the company.

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.

Learning outcome 1 end assessment

Theoretical assessment

I. Cycle the letter corresponding to the best answer:

1. UX is:
   A. User xampp
   B. User unknown
   C. User experience
2. UI is:
   A. User Internet
   B. User Intermediate
   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
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
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
6. According to the bellow statement answer by **True** or **False**
   a. Three Levels of Pain Points are plan, observation and Relationship.
   b. Pain points are problems that occur at the different levels of the customer experience.

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

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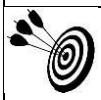
A

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
• Description of user story based on user requirements • Identification of user persona based on user stories • Description of user journey based on user stories	• Creating user story • Analysing of best user persona • Conducting UX analysis • Mapping of user journey based on user stories	• 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: 30hrs



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	Tools	Materials
• Computer • White-Board	• Browser, Figma, Trello • Adobe XD • MS excel • MS word • google form	• Markers • Internet • Papers • Pencils • Pens

Indicative content 2.1: Creation of user story

Duration: 10hrs

Theoretical Activity 2.1.1: Identification of user story

Tasks:

1: You are requested to answer to 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

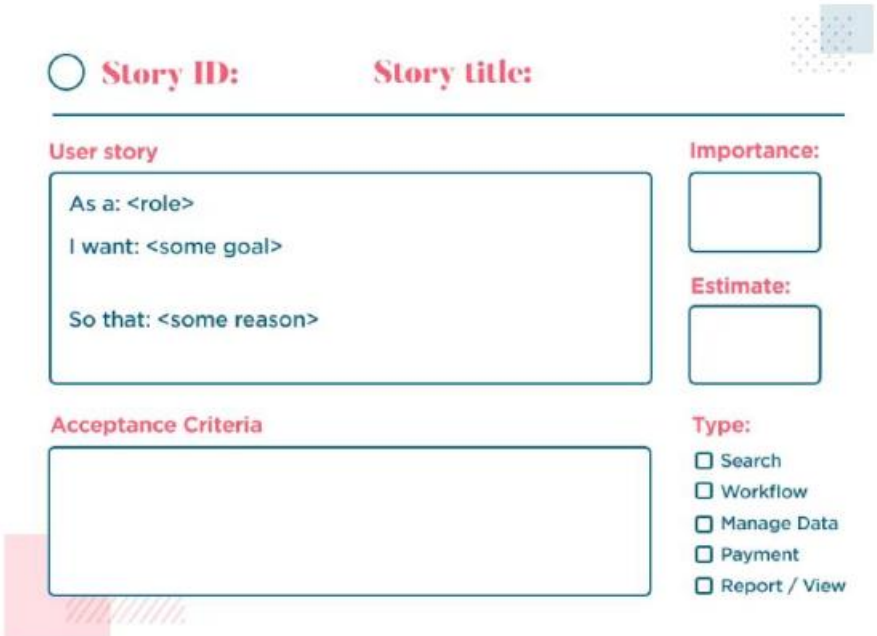
2: Provide the answers to the asked question on papers

3: Present your findings to the trainer or whole class.

4: Ask trainer for clarification if any

5: For more clarification read key readings 2.1.1

Key readings 2.1.1.: Identification of user story



- **User stories** are short, simple descriptions of a requirement told from the perspective of the person who would like a new feature.
- **user story** is a pivotal tool in the world of UX/UI design. Its primary purpose is to capture a user's needs or goals for a product or service in a simplified, user-centric manner. Writing effective user stories relies on some fundamental concepts and techniques.

- **Key Elements of a User Story:** A well-defined user story should include the following key elements:
    - ✓ **Role (Who):** The user story begins with identifying the role, representing the user or persona for whom the feature or functionality is being designed. This element answers the question, "Who is the user?"
    - ✓ **Goal (What):** The goal defines what the user wants to achieve. It's a clear and concise statement of the desired outcome. This element answers the question, "What does the user want to accomplish?"
    - ✓ **Reason (Why):** The reason provides the motivation or context behind the user's goal. It explains why the user wants to achieve the specified outcome. This element answers the question, "Why is the user pursuing this goal?"
- **Benefits of Well-Developed User Stories in UX/UI Design:**
    - ✓ **User-Centred Design**: Well-crafted user stories keep the user at the forefront of the design process. They help designers and developers understand the user's perspective, needs, and motivations, ensuring that design decisions are made with empathy.
    - ✓ **Clear Communication:** User stories serve as a universal language for cross-functional teams. They promote clear and efficient communication between designers, developers, and stakeholders, reducing misunderstandings and misinterpretations.
    - ✓ **Alignment:** User stories help align the design vision and expectations of the team and stakeholders. This alignment prevents assumptions and biases and ensures everyone is on the same page regarding the project's goals.
    - ✓ **Guidance for Design Decisions:** User stories guide design choices, from selecting features and functionality to determining layout, style, and tone. They provide a clear context for decision-making, making it easier for designers to create solutions that resonate with users.
    - ✓ **Flexibility and Adaptability:** User stories are inherently flexible. They can be adjusted, expanded, or refined as the project progresses and more is learned about the user's needs. This adaptability is valuable in an agile development environment.
    - ✓ **Prioritisation:** Well-developed user stories can be prioritised based on their importance and impact on the user experience. This allows the team to work on the most critical stories first, delivering value to users early in the project.
    - ✓ **User Feedback Loop:** User stories provide the basis for testing and feedback. By aligning designs with user stories, designers can measure user satisfaction and gather feedback effectively, ensuring that the final product meets user expectations.

- ✓ **Efficiency and Focus:** User stories keep the design process efficient and focused. They prevent scope creep by clearly defining what's in and out of the project's scope, helping the team stay on track and meet project deadlines.

In essence, a user story is a powerful tool for maintaining a user-centric focus throughout the design and development process. It's not just about what a user needs, but also why they need it. These stories act as the bridge between users and the design team, keeping the user experience at the heart of every decision and iteration.

- **User story Characteristics:** "INVEST"

I) Independent
N) Negotiable
V) Valuable
E) Estimable
S) Small
T) Testable

- ✓ **Independent:** Each user story should be self-contained and not dependent on other stories.
- ✓ **Negotiable:** refers to a characteristic of user stories that indicates they are open to discussion, refinement, and change.
- ✓ **Valuable:** refers to a characteristic of user stories that emphasises their ability to deliver significant value to both the end-users and the project.
- ✓ **Estimable**: refers to a characteristic of user stories that suggests they can be reasonably and accurately estimated in terms of time, effort, and resources required for implementation.
- ✓ **Small:** Refers to the practice of breaking down user stories into smaller, more manageable components.
- ✓ **Testable:** In UI/UX design and agile development, the characteristic "testable" refers to the ability of a user story to be tested and validated effectively.

The tasks in the user story must have the special characteristics, we entitle formulas as **SMART.** When creating user stories, it's essential to make them clear, concise, and actionable. One approach that aids in achieving this clarity is the SMART framework.

1. **Specific**: A specific user story should be detailed and unambiguous. It should answer the questions: Who is the user? What do they need? Why do they need it?

2. **Measurable**: A measurable user story should provide a clear way to determine when it's complete. This often involves setting criteria that can be objectively evaluated.
3. **Achievable**: An achievable user story should be realistic within the constraints of the project. It should consider available resources, time, and technical capabilities.
4. **Relevant**: A relevant user story should contribute to the project's objectives. It should be aligned with the overall vision and goals, ensuring that work is not wasted on non-essential features.
5. **Time-bound**: A time-bound user story should have a defined timeline or deadline. This helps in planning and prioritizing tasks effectively.

- **User Personas:**

User personas are like characters in a story that represent specific groups of people who will use a product or service. These personas are not real individuals but are crafted based on data collected from user research methods like interviews, surveys, and observations.

- **User Journey:**

A user journey maps out the steps a typical user takes to accomplish a specific goal while interacting with a product or service.

- ✓ It is built on the foundation of user personas and user stories, allowing the design team to understand the user's experience and emotions at each stage of the interaction.
- ✓ User journeys illustrate how users navigate through a product and provide insights into their expectations and pain points. For example, John's user journey could detail how he uses a prototyping tool to create and share interactive prototypes.

- **UX brief (UX project brief)**

- ✓ **UX brief integrates all components:** The UX brief brings together user stories, user personas, and user journeys, along with other critical project information, to provide a comprehensive and aligned vision of the design project.

In this way, these interconnected elements collectively shape the design process, from understanding and empathising with users to creating a clear roadmap for the project and ensuring alignment with user needs and business goals.

Practical Activity 2.1.2: Create user story

Task:

1: Read carefully the task described below and answer the question:

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

2: Read the key readings 2.1.1 for more clarification and ask trainer for help.

3: Show the trainer how to use figma platform. While demonstrating, explain the steps to use draft of figma platform.
4: Asks trainer for clarification practical use of figma platform and observe the procedures.
5: Verify whether the drafts are clearly used.

Key readings 2.1.2.: Create user story

- **Steps to create a user story**

✓ **Understand the Audience:**

- Conduct in-depth user research to uncover the specific needs, preferences, pain points, and motivations of our target audience, which in this case are young adults with a strong interest in fashion.
- Create user personas that embody the characteristics of our typical users.
- Develop user journey maps to visualise the steps and touchpoints of a user's interaction with the website.

✓ **Market and Competitor Analysis:**

- Perform a thorough analysis of the fashion retail market to stay updated with current trends and market dynamics.
- Evaluate competitor websites to identify strengths and weaknesses.

✓ **Define Problem Statement and Goals:**

- Clearly define the problem statement, which should address a specific pain point or challenge faced by our target users.
- Set SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals to ensure the design objectives are well-defined and quantifiable.
- Develop a clear value proposition that highlights how our solution will benefit users.

✓ **Ideation and Solution Generation:**

- Engage in brainstorming sessions with the design and development team to generate creative solutions to the defined problem.
- Create sketches, wireframes, and prototypes to visualise potential solutions.
- Consider factors like aesthetics, usability, and accessibility during this phase.

✓ **Validation and Testing:**

- Validate the proposed solutions by involving the target users and stakeholders.
- Perform usability testing to observe how users interact with the website and gather their feedback.
- Implement A/B testing to compare the performance of different design variations.
- Continuously collect user feedback and iterate on the design to enhance user satisfaction.

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 businessman with making international trading of electronic devices needs to create a global system of how all the customers can gain and create the request to the needed accessories. For achieving all 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.

Indicative content 2.2: Identification of user personas

Duration: 10 hrs

Theoretical Activity 2.2.1: Identification of user personas

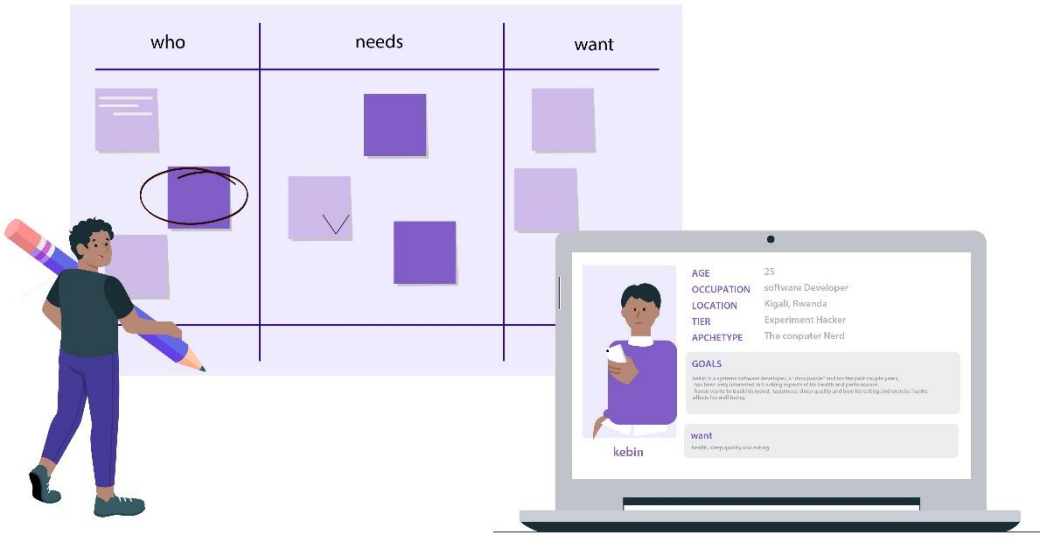
Tasks:

1: You are request to respond to the following questions

a) What do you understand by the term user persona?
b) Give five (5) characteristics of user persona.
c) What are Benefits of User personas in design process?

2: Provide answers to the asked question on papers
3: Present your findings to the trainer or colleagues.
4: Ask for clarification to the trainer
5: Read the key readings 2.2.1 for deeper understanding.

Key readings 2.2.1.: Identification of user personas



- **Here's what you need to know about user personas in UX design:**
  - ✓ **Defining User Personas:**

- User personas are fictional, yet highly detailed, representations of potential users.
- They help you empathise with your users, understand their needs, and design solutions that cater to those needs.

- User personas are rooted in real user data, ensuring that your designs are driven by actual user behaviours and preferences.
- Key information in a persona may include the user's name, age, occupation, goals, pain points, and preferences.
- A persona is often given a face, which can be an illustration, a photo, or a stock image, to make it relatable.

✓ **The Role of User Personas in UX Design:**

User personas serve several important purposes in UX/UI design:

- They promote a user-centred design process, where the user's perspective and motivations are always prioritised.
- User personas facilitate effective communication and alignment among the design team and stakeholders, reducing assumptions and biases.
- They guide design decisions, influencing everything from features and functionality to layout, style, and tone.
- User personas also play a crucial role in evaluating and testing design solutions, measuring user satisfaction, and collecting feedback.

✓ **Types of User Personas:**

In UX/UI design, there are different types of user personas, each with its unique characteristics:

- **Primary Personas:** These represent the most important and common user group for a product or service. They have the highest priority and influence on design decisions.
- **Secondary Personas:** These represent user groups with different or unmet needs compared to primary personas. They have a lower priority but still influence design.
- **Supplemental Personas:** These represent user groups with similar or overlapping needs to primary personas, but with minimal influence on design.
- **Negative Personas:** These personas represent user groups that are not relevant or desirable for a product or service, helping to define the scope and boundaries of design efforts.

- **Some examples of user personas in the context of a prototyping tool for UX designers:**

✓ **Primary Persona - John:**

- Name: John
- Age: 35
- Occupation: UX Manager at a design consultancy

- Goals: Streamline the design process, collaborate effectively with the team and clients.
- Pain Points: Frustrated by the lack of consistency and efficiency in current tools and workflows.
- Preferences: Seeks tools that prioritise team collaboration and efficient workflows.

✓ **Secondary Persona - Lisa:**

- Name: Lisa
- Age: 28
- Occupation: Freelance UX Designer
- Goals: Create and share interactive prototypes for various clients.
- Pain Points: Needs a flexible and reliable tool, always looking for better options.
- Preferences: Values flexibility and reliability in prototyping tools but open to exploring new options.

✓ **Supplemental Persona - Kevin:**

- Name: Kevin
- Age: 32
- Occupation: UX Designer at a software company
- Goals: Create and test complex prototypes for a large design team.
- Pain Points: Requires a versatile and powerful tool but is satisfied with current tools.
- Preferences: Open to new features but content with existing tools for complex prototyping.

✓ **Negative Persona - Amy:**

- Name: Amy
- Age: 25
- Occupation: Graphic Designer at a marketing agency
- Goals: Focused on creating visual assets and branding materials, no interest in prototyping tools.
- Preferences: Not interested in learning or trying prototyping tools, not part of her role.

These user personas for the prototyping tool serve as concrete examples of different potential users with distinct needs, goals, and preferences. By having these personas, the design team can tailor the tool's features, functionality, and user experience to meet the

diverse requirements of John, Lisa, Kevin, and avoid catering to users like Amy, who are not part of the target audience.

- **Importance of user personas**

User personas play a crucial role in UI/UX design for several reasons:

- ✓ **Human-centred design:** User personas bring the focus of design efforts back to the users. They help designers empathise with and understand the needs, goals, and behaviours of real people who will interact with the product. By putting the user at the centre of the design process, personas ensure that the final product is tailored to meet their expectations and requirements.

- ✓ **Targeted design decisions:** User personas provide a clear picture of the target audience. They help designers make informed decisions about the features, functionality, and aesthetics of the product. Personas help answer questions like "What features would this persona find valuable?" or "How would this persona navigate through the interface?" This targeted approach ensures that the design aligns with the specific needs and preferences of the intended users.

- ✓ **Communication and collaboration**: Personas act as a communication tool, enabling designers, developers, and stakeholders to have a shared understanding of the target audience. They make it easier to discuss and prioritise design decisions, as everyone can refer to the personas as a common reference point. Personas also facilitate collaboration between team members by providing a shared language and context for discussions.

- ✓ **UX optimization:** User personas help identify pain points, challenges, and opportunities in the user experience. By understanding the goals and motivations of different user segments, designers can optimise the user flow, information architecture, and interaction design to create a more intuitive and seamless experience. Personas also assist in identifying potential usability issues early in the design process, which can lead to more efficient iterations and improvements.

- ✓ **Design validation**: User personas serve as a benchmark for evaluating design concepts and prototypes. They can be used to test and validate design decisions by gathering feedback from representative users. Designers can compare user feedback against the personas to ensure that the design is meeting the expectations and requirements of the target audience. This iterative validation process helps refine the design and reduce the risk of creating a product that doesn't resonate with users.

Overall, user personas are a valuable tool in UI/UX design as they bring the users into focus, guide design decisions, foster collaboration, optimise the user experience, and facilitate design validation. By leveraging personas, designers can create products that are user-centred, intuitive, and satisfying to the intended audience.

- **Characteristics of user personas**

User personas in UI/UX design typically have several key characteristics that make them effective in guiding the design process.

Here are some common characteristics of user personas:

- ✓ **Fictional representations:** User personas are fictional characters created based on real user data and research. They embody the characteristics, behaviours, and goals of specific user segments. Personas are not real individuals but serve as archetypes that represent a group of users.

- ✓ **Based on research:** User personas are developed through user research and data analysis. Designers collect information about users through interviews, surveys, observations, and other research methods. The personas are derived from patterns and insights found in the data, ensuring they are rooted in real user behaviours and needs.

- ✓ **Demographic and psychographic details:** User personas include both demographic and psychographic information. Demographic details cover characteristics such as age, gender, occupation, education, and location. Psychographic information delves into users' motivations, preferences, behaviours, and goals. This combination of information helps designers understand the diverse aspects of users' identities and influences their interactions with the product.

- ✓ **Realistic and relatable:** User personas are designed to be relatable to the design team. They often include a name, a photo, and a brief backstory to make them more tangible and memorable. Personas should feel like real people to designers, helping them empathize with users and make design decisions that align with users' needs and expectations.

- ✓ **Segmented and representative:** User personas are developed based on user segmentation. Designers identify distinct user groups with common characteristics, needs, and goals. Each persona represents a specific segment of the target audience, ensuring that a broad range of user perspectives and requirements is considered in the design process.
- ✓ **Goal-oriented:** User personas highlight the goals and motivations of the target users. They capture what users are trying to accomplish when interacting with the

product or service. Understanding users' goals helps designers align the features, interactions, and overall user experience to facilitate successful task completion and satisfaction.

- ✓ **Contextual information:** User personas provide context for design decisions. They include information about the users' environment, technological proficiency, preferences, pain points, and any other relevant details. This context helps designers understand how users will interact with the product and tailor the design accordingly.

- ✓ **Evolving and iterative:** User personas are not static. They should evolve and adapt as new user insights and feedback emerge. Designers should regularly update personas to ensure they accurately represent the changing needs and behaviours of the target audience. Iteratively refining personas ensures that design decisions remain relevant and effective.

By embodying these characteristics, user personas become a powerful tool in UI/UX design, enabling designers to create user-centred experiences that address the specific needs and goals of their target audience.

- **User personas in design process**

User personas play a significant role in each phase of the design process, helping designers make informed decisions and create user-cantered solutions. Let's explore how user personas are involved in each phase:

- ✓ **Understand (Empathize, Define):**

During the Understand phase, designers focus on gaining a deep understanding of the users and their needs

- **Empathize**: User personas aid designers in empathising with the target audience. They help designers gain a deeper understanding of users' needs, goals, motivations, and pain points. Personas provide a human element that makes it easier for designers to empathise with the users they are designing for .
- **Define:** User personas help define the target audience and their characteristics. They provide a clear picture of the users' demographics, behaviours, preferences, and pain points. Designers use the personas to identify user needs and define design goals that align with the users' requirements.

- ✓ **Explore (Ideate, Prototype):**

During the Explore phase, designers generate ideas and explore design concepts.

- **Ideate:** User personas act as a source of inspiration during the ideation process. Designers refer to the personas to generate design ideas that cater to the specific needs and preferences of the different user segments represented by the personas.

- **Prototype**: User personas help inform the creation of prototypes. Designers use the personas to guide the creation of user flows, interactions, and functionalities within the prototypes. By considering the personas' goals and behaviours, designers ensure that the prototypes are tailored to meet the users' requirements.

✓ **Materialize (Test, Implement):**

In the Materialize phase, designers focus on testing and implementing the design.

- **Test:** User personas play a vital role in usability testing. Designers recruit participants who match the characteristics of the personas to gather feedback on the design. This helps evaluate how well the design meets the needs of the intended users and identifies any usability issues that need to be addressed.

- **Implement:** User personas guide the implementation process. Designers refer to the personas when making design decisions, prioritising features, and ensuring that the final product or service aligns with the needs of the target users.

Throughout the design process, user personas act as a compass, keeping the focus on the target users. They provide a human-centred perspective, helping designers create solutions that resonate with the identified user segments. By incorporating user personas, designers can make more informed decisions, increase empathy, and create products or services that meet the needs of their intended audience.

Practical Activity 2.2.2: Create user personas

Task:

1: Read the key readings 2.2.2 to answer the task described below:
As UX Designer, you are asked to access internet and figma platform to create user persona of baby boom store shop.
2: Read the key readings 2.1.1 for more clarification and ask trainer for help.
3: present your findings to the whole class or trainer
4: Asks trainer for clarification practical use of figma platform and observe the procedures.
5: Verify whether the drafts are clearly used.

Key readings 2.2.2.: Create user personas

- **Read the key readings in theoretical activity 2.2.1.**
- **Steps of creating user personas**
  - ✓ **Research your users:**

Start by collecting data and information about your users. This data can come from various sources, including surveys, interviews, analytics, and market research. It should cover aspects such as demographics, behaviour, motivations, and pain points.

  - ✓ **Identify audience segments:**

Divide your users into distinct groups based on common characteristics or behaviours. These segments will serve as the foundation for your personas. Common segments might include age, gender, job role, location, or technology proficiency.

  - ✓ **Gather background on your personas:**

For each user segment, create a persona. A persona typically includes the following elements:

- Name: Give the persona a name to make it more relatable.
- Photo: Add a representative image to visualize the persona.
- Demographics: Include age, gender, location, job title, income, and other relevant details.
- Goals: Describe the user's primary goals and objectives when interacting with your product or service.
- Needs and Pain Points: Outline the user's needs, challenges, and pain points in their journey.
- Behaviours: Detail their typical behaviours, preferences, and decision-making processes.
- Technology Use: Describe the devices, platforms, and technologies they use.
- Quotes: Include quotes or statements that capture their attitudes or preferences.

  - ✓ **Start filling in a persona template:**

Throughout the UX design process, reference your personas to make informed decisions. For example, when creating user flows, consider how each persona would navigate the system.

  - ✓ **Write a brief for your personas:**

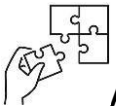
As you design and develop your product or service, gather feedback from real users and see if your personas accurately represent your target audience. Make adjustments to your personas if necessary.

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.

- 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
  1: Research your users.
  2: Identify audience segments.
  3: Gather background on your personas.
  4: Start filling in a persona template.
  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.

Indicative content 2.3: Creation of user journey

Duration:5hrs

Theoretical Activity 2.3.1: Description of user journey

Tasks:

1: You are requested to answer to the following questions:

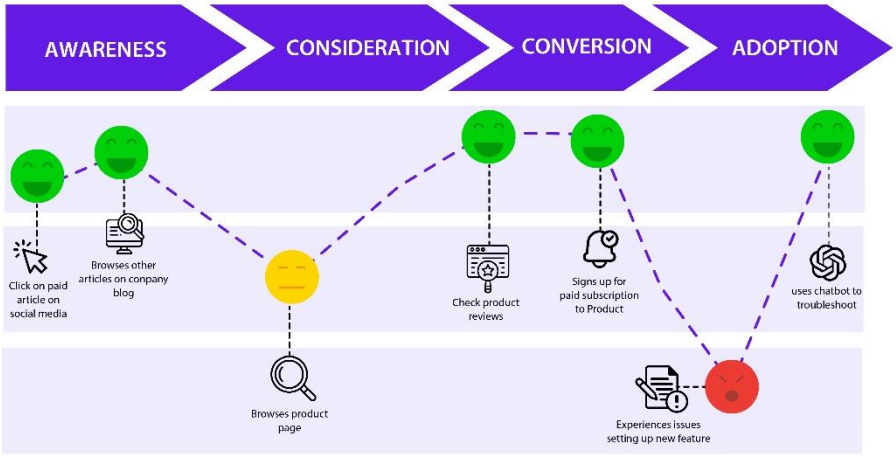
I. What do you understand about the term user journey?
II. What are the element of user journey map?
III. List three (3) types of user journey map

2: Provide answer to the asked question on paper

3: Present your findings to the trainer or colleagues

4: Ask clarification if any and read key readings 2.3.1.

Key readings 2.3.1.: Description of user journey



- ✓ **A user journey map** is a visual representation of what a user must do to achieve a goal, and outlines the experience they have with your brand.
- ✓ **Types of user journey map**
  1. **Experience maps:** are the simplest type of -user journey maps. They're all about tracking behaviors at each phase of a process from beginning to end. Experience maps are used to visualize the steps someone takes to achieve a desired goal, like buying a car or ordering take-out through a delivery app.

2. **Current state maps** Current state maps are the most common type of journey maps. They're a visual representation of how users engage with your product at every customer touchpoint. Current state maps help you think about a customer's mindset, behavior, and pain points when they use your app. Using this map, you can constantly tweak your UX to keep users happy with your product.

Customer Journey: Current State	Step 1	Step 2	Step 3	Step 4	Step 5
What's the customer thinking or feeling?					
What action does the customer take?					
How is the customer interacting with our company/product?					
Should any change be made at this point?					
Why should we make this change and how will we do it?					

3. **Future state maps:** Future state maps use the framework set up by current state maps and shift the focus to what's next. Mapping the future state is all about designing an experience that does not yet exist—specifically, one that improves upon the current journey.
4. **Empathy maps:**

Empathy maps don't follow a particular sequence of events along a user journey. Instead, these maps are divided into four sections and track what a user ***says***, ***thinks***, ***does***, and ***feels*** when using a product.

Empathy maps are usually created after user research and usability tests, where you have a chance to observe and directly ask someone about their experience with your product in real time.

5. Day in the life maps

Day in the life maps are all about narrowing in on users' daily behaviour's to gain insight into how a product can help alleviate a person's pain points. They're used to visualize obstacles a user might encounter and address issues well before the user notices there's a problem.

6. Service blueprints

Service blueprints shift the focus away from customer centricity and toward how companies work to deliver products and services to their customers. Service blueprints detail the individual actions performed by everyone involved in the delivery process—including the customer. By focusing on touchpoints across channels and departments, service blueprints help to reveal hiccups in business processes. They focus on the customer as well as the roles employees and service providers play in different scenarios.

- ✓ **Elements of a user journey map**
    a. **Persona:** describe in details who your key customers are and why they feel the way that they do.
    b. **Scenario:** describe the stories and context behind why user comes to your site.
    c. **Stages of the journey:** describe the process between the user and the product.
    d. **User actions:** what actions can the user takes in stage of the journey.
    e. **User emotions and thoughts**: what is the user emotional state as they move through the stage. Describe the visualization of user experience when interacting with a products or services.
    f. **Opportunities:** describes where you can improve the UX of your products or connect with your customer and more effective way.
    g. **Internal ownership:** which team or team member will be responsible for put into practice these changes.

- ✓ **How to create a user journey map?**
    a. Define the scope. Creating a helpful user journey map starts with defining your goals.
    b. Build user personas.

c. Define user goals, expectations, and pain points.
d. List out touchpoints and channels.
e. Map the journey.
f. Validate and refine the map.
g. Perform UX Research

The role of a UX researcher is to uncover user behaviors, needs and motivations to make products, services and websites more intuitive and enjoyable for users.

- ✓ **When creating a user journey, there are several important points to keep in mind:**
- ✓ **Define clear objectives:** Clearly define the purpose and goals of the user journey. Understand what you want to achieve and what actions you want the user to take.

- ✓ **Identify user personas:** Develop detailed user personas that represent your target audience. Consider their demographics, behaviors, needs, motivations, and goals. This will help you tailor the user journey to their specific needs.

- ✓ **Map out the steps:** Break down the user journey into distinct steps or stages. Identify the key touchpoints and interactions the user will have with your product, service, or website. This includes both online and offline channels.

- ✓ **Understand user emotions:** Consider the emotions users may experience at each step of the journey. Empathize with their feelings, motivations, and potential pain points. This will help you design experiences that address their emotional needs.

- ✓ **Incorporate user insights:** Utilize user research, feedback, and data to inform the user journey. Understand user behaviors, preferences, and pain points through methods like surveys, interviews, and analytics. This will ensure your user journey is grounded in real user needs.

- ✓ **Include multiple channels:** Consider the various channels and touchpoints users may encounter during their journey. This can include websites, mobile apps, social media, email, customer support, and physical locations. Ensure a seamless experience across all channels.

- ✓ **Identify pain points and opportunities:** Identify any potential pain points or areas of frustration for users. Look for opportunities to improve the user experience at each step. Address any barriers that may prevent users from achieving their goals.

- ✓ **Iterate and refine:** User journeys are not set in stone. Continuously iterate and refine the user journey based on user feedback, usability testing, and data analysis.

Regularly review and update the journey to ensure it remains relevant and aligned with user needs.

- ✓ **Collaborate with stakeholders:** Involve stakeholders from various departments, such as design, marketing, and customer support, in the creation of the user journey. Collaborate to align goals, gather insights, and ensure a holistic understanding of the user experience.
- ✓ **Visualize the journey:** Create a visual representation of the user journey map. This can be in the form of a flowchart, diagram, or other visual formats. Visualizing the journey helps stakeholders understand and align on the user experience.

By keeping these points in mind, you can create a user journey that is comprehensive, user-centric, and aligned with your business objectives.

Practical Activity 2.3.2: Create user journey map

Task:

1: You are requested to perform the given task 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.

2: Read the key readings 2.3.2 for knowing how to create user journey.

3: Create user journey map using figma. While creating, respect the steps to create it.

4: Present your findings to the trainer or colleague.

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

5: Ask more clarification if any.

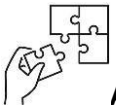
Key readings 2.3.2.: Create user journey map

- **How to create a user journey map?**

✓ Define the scope. Creating a helpful user journey map starts with defining your goals.
✓ Build user personas.
✓ Define user goals, expectations, and pain points.
✓ List out touchpoints and channels.
✓ Map the journey.
✓ Validate and refine the map.

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 current state journey map, future state journey map, daily in life journey map, service blue print journey map, empathy journey map and 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.
- 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
  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 and attendance, as UX designer create user journey map to show the path to access student's marks.

Learning outcome 2 end assessment

Written assessment

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

a) Step of UX designer's journey are five.

b) User journey help user to interacts 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 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 visualization of the first wireframes and prototypes is ……

b) ……. is a document used to outline the strategy of a creative project?

Practical assessment

Scenario: 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-centered design that caters to their needs and preferences.

- **Assessment Steps:**

✓ **User Persona Creation (15 minutes):**

Begin by creating a user persona for an outdoor enthusiast. 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 behaviors. 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 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.

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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
• 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	• Using Figma prototyping tools • Sketching Wireframe • Sketching Mockup • Presenting prototype • Setting up files • Managing components, layers and color palettes • Testing figma using figma mirror	• 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: 100hrs

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	Tools	Materials
• Computer • Projector • White board	• Figma • Trello • Adobe XD	• Markers • Internet • Paper • Pencil • Pens

Indicative content 3.1: Use of Figma prototyping tool

Duration: 20hrs

Theoretical Activity 3.1.1: Description of Key Concepts

Tasks:

1: Answer 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-cantered design
- Usability
- 3-Clicks rule
- Feedback

ii. What is 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.

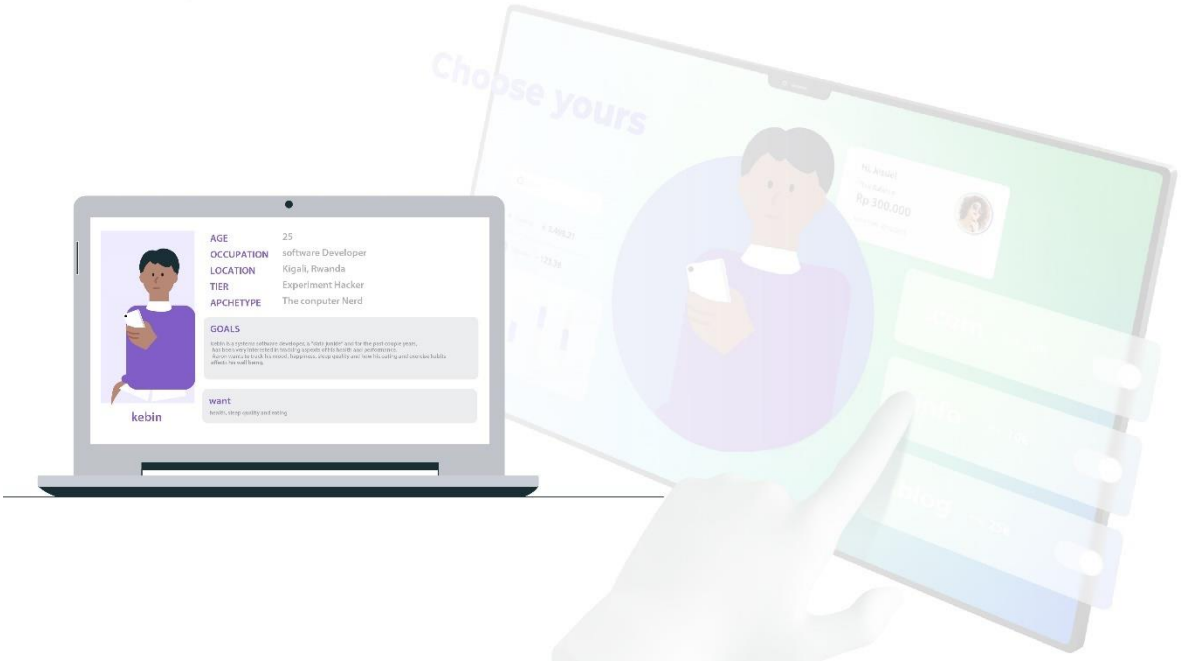
v. What are components of information architecture

2: Write answers provided on flipchart/papers.

3: Present their findings to the trainer or colleagues

3: For more clarification, read the key readings 1.1.1,1.3.1&3.1.1.and ask questions to the trainer where necessary.

Key readings 3.1.1.: Description of Key Concepts



- **UX/UI Design**

UI and UX design are two closely related but distinct aspects of web design that work together to create engaging and satisfying user experiences. Here, we will explore these two disciplines in more detail, highlighting their key elements and benefits.

- **UI Design (User Interface Design):**

UI design, which stands for User Interface Design, is primarily concerned with the visual and graphical elements of a website or digital product.

It focuses on creating an attractive and user-friendly interface that users interact with directly.

- **Some key elements of UI design include:**

✓ **Layout:** The arrangement of elements on a web page, including buttons, icons, images, and text. Layout design ensures a visually pleasing and organised structure.

✓ **Color:** The selection of colors for various elements, backgrounds, and typography. Color choices influence the mood, readability, and accessibility of the website.

✓ **Typography:** The choice of fonts, their sizes, spacing, and alignment. Typography affects the readability, hierarchy, and personality of the website.

- ✓ **Icons:** Graphic symbols representing actions, objects, or concepts. Icons enhance usability, aesthetics, and branding.

- ✓ **Images:** Visual content that conveys information, emotions, or stories. Images attract attention, create interest, and support the website's message.

- ✓ **Animation:** The movement or transition of elements on a web page, adding interactivity, feedback, or delight.

- **Benefits of UI Design:**

The benefits of effective UI design include increased user satisfaction, improved conversion rates, and reduced costs and errors. A well-designed UI creates an attractive and intuitive interface, leading to positive user experiences and achieving business objectives.

- ✓ **Increased User Engagement:** A well-crafted UI design captures users' attention and encourages them to interact with the website. Engaging visuals, clear call-to-action buttons, and appealing layout draw users in.

- ✓ **Enhanced Brand Perception:** UI design plays a pivotal role in reinforcing brand identity. A visually consistent and pleasing interface builds trust and credibility, enhancing how users perceive your brand.

- ✓ **Improved User Satisfaction:** A user-friendly interface created through UI design ensures that users can easily navigate the website. This leads to a positive user experience, making users more satisfied with their interaction.

- ✓ **Reduced Page Abandonment:** Clear and intuitive UI design elements, such as menus and navigation, minimise user confusion. Users are more likely to stay engaged and explore the website rather than leaving due to frustration.

- ✓ **Higher Conversion Rates:** A persuasive UI design, which includes compelling visuals and clear calls to action, can boost conversion rates. Whether it's signing up, making a purchase, or subscribing, a well-designed UI can encourage users to take desired actions.

- **Characteristics of a good UI Design**

A good UI (User Interface) design is characterized by several key elements that make it visually appealing, user-friendly, and effective in providing a seamless user experience. **Here are some characteristics of a good UI design:**

- ✓ **Clarity and Simplicity:** A good UI design prioritizes clarity and simplicity. It ensures that users can easily understand and navigate the interface without unnecessary complexity. Clutter-free designs with intuitive layouts help users focus on the content or tasks.

- ✓ **Consistency:** Consistency in design elements such as color schemes, fonts, button styles, and icons creates a cohesive and familiar look and feel. This consistency helps users understand how to interact with the interface.

- ✓ **Effective Visual Hierarchy:** A well-designed UI establishes a clear visual hierarchy that guides users through the content or features. Important elements are emphasized, making it easy for users to identify key actions or information.

- ✓ **Responsive Design:** A good UI design is responsive, adapting to various screen sizes and devices. This ensures that the interface remains functional and visually appealing on desktop computers, tablets, and mobile devices.

- ✓ **Readability:** Typography plays a critical role in UI design. Good UI designs use legible fonts, appropriate font sizes, and proper spacing to enhance readability. Clear, concise text helps users easily consume information.

- ✓ **Engaging Visuals:** While simplicity is important, engaging visuals, including high-quality images and graphics, can enhance the user experience. Visually appealing content can capture users' attention and convey information effectively.

- ✓ **Effective Use of Color:** Color choices are deliberate and serve to enhance the user experience. Colors are used not only for aesthetics but also to convey meaning and guide users. Color schemes should be accessible and consider issues such as color blindness.

- ✓ **Intuitive Navigation:** A good UI design provides intuitive navigation options, such as well-organized menus, buttons, and links. Users should easily find their way around the interface and access the content or features they need.

- ✓ **Clear Call-to-Action (CTA) Elements:** CTAs, such as buttons or links, are distinct and easily recognizable. They use clear, action-oriented language to prompt users to take specific actions, such as "Sign Up" or "Learn More."

- ✓ **Feedback and Interactivity:** Users should receive immediate feedback when interacting with the UI. For example, buttons should change appearance when clicked, forms should provide validation feedback, and loading indicators should inform users of progress.

- ✓ **Accessibility:** A good UI design takes accessibility into account. It ensures that all users, including those with disabilities, can effectively use the interface. Features like alt text for images and keyboard navigation are considered.

- ✓ **Loading Speed:** UI design considers loading speed. Fast-loading pages improve the user experience by reducing wait times. This is crucial, especially for mobile users with limited data or slower connections.

- ✓ **A/B Testing and Iteration:** Effective UI designs often undergo A/B testing and iteration. This means designers continually refine the design based on user feedback and data to ensure it meets users' needs and expectations.

- ✓ **Scalability:** UI designs are scalable, meaning they can accommodate growth and changes in content or functionality. Scalable designs can adapt to new features or content without compromising the user experience.

- ✓ **Cross-Browser Compatibility:** A good UI design is compatible with multiple web browsers to ensure a consistent experience for all users, regardless of their browser preferences.

In summary, a good UI design is characterized by its focus on clarity, consistency, simplicity, and user-friendliness. It prioritizes the needs of the user and ensures that the interface is visually appealing, functional, and accessible.

- **UX Design (User Experience Design):**

UX design, or User Experience Design, focuses on the overall experience users have when interacting with a website or digital product. It encompasses a broader perspective that considers the entire user journey and emotional responses.

- **Key elements of UX design include:**

- ✓ **User Research**: Understanding user needs, goals, behaviors, and preferences through methods like interviews, surveys, and analytics.

- ✓ **User Personas:** Creating representative profiles of target users to guide design decisions and empathize with their needs.

- ✓ **User Journey Maps:** Visualizing the steps users take to complete tasks, identifying pain points and opportunities for improvement.

- ✓ **Information Architecture:** Organizing website content in a logical and intuitive manner, making it easy for users to find information.

- ✓ **Usability Testing:** Evaluating the website's usability with real users to identify and address usability issues, ensuring that the site meets user expectations.

- **Benefits of UX Design:**

The benefits of effective UX design include increased conversion rates, improved customer loyalty, reduced customer support costs, and enhanced brand reputation. A positive user experience, facilitated by well-thought-out UX design, encourages users to complete desired actions and fosters brand loyalty.

- ✓ **Increased Conversion Rates:** UX design is about making the user's journey seamless and efficient. When users can easily find what they need and complete tasks, conversion rates tend to increase. Whether it's a sale, sign-up, or any other action, an intuitive UX helps users achieve their goals.

- ✓ **Improved Customer Loyalty:** A positive user experience fosters customer loyalty. Users are more likely to return to a website where they had a satisfying experience. This not only increases repeat visits but also encourages them to become advocates for your brand.

- ✓ **Reduced Customer Support Costs:** An intuitive UX design minimizes user frustration. Users are less likely to encounter difficulties or confusion, which can lead to a reduced need for customer support. This, in turn, saves time and resources.

- ✓ **Enhanced Brand Reputation:** A website with a positive user experience contributes to a strong brand reputation. Satisfied users are more likely to share their positive experiences with others, leading to word-of-mouth recommendations and a competitive advantage.

- ✓ **Efficient Workflow:** A well-designed UX simplifies user interactions. Users can efficiently complete tasks, find information, and achieve their goals. This not only saves users' time but also makes the overall workflow more efficient.

- **Characteristics of a good UX Design**

A good UX (User Experience) design is characterized by several key features that contribute to a positive and satisfying interaction between users and a website or digital product. Here are the characteristics of a good UX design:

- ✓ **User-Centered:** A good UX design prioritizes the needs, preferences, and behaviors of the target users. It is built with a deep understanding of the users' expectations and requirements, aiming to provide a solution that meets their needs effectively.

- ✓ **Usability:** Usability is a fundamental characteristic of good UX design. The design ensures that users can easily and efficiently navigate the website or application. Information is organized logically, and tasks are straightforward to complete.

- ✓ **Intuitiveness:** A good UX design is intuitive. Users should be able to understand how to interact with the interface without the need for extensive instructions or tutorials. Elements are labelled clearly, and common design patterns are used to guide users.

- ✓ **Efficiency:** Users should be able to achieve their goals quickly and with minimal effort. A good UX design streamlines processes, reduces unnecessary steps, and minimizes user frustration.

- ✓ **Consistency:** Consistency is crucial for a positive user experience. A good UX design maintains consistency in design elements, such as buttons, icons, and typography, across the entire interface. This uniformity makes the experience predictable and familiar.

- ✓ **Clarity:** The design should communicate information effectively. Text, visuals, and instructions are clear and easy to understand. Ambiguity is minimized to prevent user confusion.

- ✓ **Accessibility:** A good UX design is inclusive and considers the needs of all users, including those with disabilities. It complies with accessibility standards, ensuring that all users can access and use the product.

- ✓ **Feedback:** Users should receive feedback when they interact with the interface. Whether it's a confirmation message, a change in button appearance, or an error notification, feedback keeps users informed about the outcome of their actions.

- ✓ **Emotionally Engaging:** Good UX design goes beyond functionality. It aims to create an emotionally engaging experience by incorporating elements that evoke positive feelings, such as delight, satisfaction, or excitement.

- ✓ **Scalability:** A well-designed UX considers the potential for growth and scalability. It is adaptable to accommodate new features, content, or user needs without causing disruptions or confusion.

- ✓ **Error Handling:** Errors and mistakes are handled gracefully in a good UX design. Users are provided with clear instructions on how to correct errors, and the system prevents or mitigates critical errors when possible.

- ✓ **User Feedback Integration:** Feedback from users is valuable for continuous improvement. A good UX design incorporates mechanisms for collecting user feedback and uses this input to make iterative enhancements.

- ✓ **Performance:** A good UX design ensures that the website or application performs efficiently and loads quickly. Slow loading times or performance issues can negatively impact the user experience.

- ✓ **Security:** Security is a critical aspect of UX design, especially for applications that handle sensitive data. A secure design protects user information and provides a sense of trust and reliability.

- ✓ **Goal Achievement:** Ultimately, a good UX design enables users to achieve their goals. Whether it's making a purchase, finding information, or completing a task, the design guides users to successful outcomes.

- **In summary,** UI and UX design work hand in hand to create a harmonious web experience. UI design focuses on the visual aesthetics and user interface, while UX design takes a holistic approach to ensure that users have a seamless and satisfying journey through the website. Together, they contribute to higher user satisfaction, increased engagement, and business success.
- **Importance of UX/UI design the software development**

- ✓ **User Satisfaction:** Good UX and UI design can greatly enhance user satisfaction. When users find a software application easy to use and visually appealing, they are more likely to enjoy using it, and their overall experience is positive.
- ✓ **User Engagement:** A well-designed user interface can encourage user engagement and retention. If the software is intuitive and visually appealing, users are more likely to spend more time using it and exploring its features.
- ✓ **Usability:** Effective UX design focuses on making the software user-friendly and easy to navigate. Users should be able to achieve their goals and complete tasks without confusion or frustration. This leads to increased productivity and efficiency.
- ✓ **Accessibility:** UX and UI design should consider the needs of all users, including those with disabilities. Ensuring that your software is accessible to everyone not only improves inclusivity but may also be a legal requirement in some cases.
- ✓ **Brand Image:** The visual design and user interface of your software can help establish and reinforce your brand's identity. A cohesive and aesthetically pleasing design can leave a positive impression on users and build trust in your brand.

- **UX design process key phases are:**
  - ✓ **R**esearch and Discovery
  - ✓ Define
  - ✓ Ideation and Conceptualization
  - ✓ Design
  - ✓ Prototype Testing
  - ✓ Development
  - ✓ Testing and Quality Assurance
  - ✓ Deployment
- **Creating wireframes**. A wireframe is a tool that helps designers visualize the basic structure of a future page, including the key elements and how they fit together.

A mockup is the next, more in-depth iteration of the wireframe outline.

- **Creating prototypes.** While wireframes are mostly about structure and visual hierarchy (the look), prototypes are about the actual interaction experience (the look and feel).

Information Architecture

- **Content Categorization:** defines how content is categorized and grouped into logical segments.
- **Navigation Menus**: influences the design and layout of navigation menus, including primary, secondary, and tertiary menus. It determines how menu items are organized and labelled to aid user navigation.
- **Sitemaps:** Sitemaps are visual representations of the IA and show the hierarchy and relationships between different pages or sections of a website. They provide an overview of the entire content structure.

- **Wireframes:** IA is often represented through wireframes, which are skeletal layouts of web pages or screens. Wireframes illustrate the placement of content, user interface elements, and the flow of information, helping designers visualize the IA in action.

✓ **The design thinking process typically consists of the following stages**:

- **Empathize:**

In this initial stage, designers seek to understand the needs and perspectives of users. This involves engaging with users, conducting user research, and actively listening to their experiences. The goal is to develop deep empathy for the users and their challenges.

- **Define:**

Once empathy is established, designers define the problem or challenge they aim to address. This stage involves synthesizing the insights gathered from user research and reframing them into a clear problem statement. It's crucial to identify the root causes of user issues.

- **Ideate:**

During the ideation phase, designers brainstorm and generate a wide range of creative solutions to the defined problem. This often involves collaborative workshops, sketching, and other creative techniques to encourage diverse ideas without judgement. The focus is on quantity rather than quality at this stage.

- **Prototype:**

After ideation, designers create low-fidelity prototypes or mockups of potential solutions. Prototypes can be paper sketches, wireframes, or digital mockups that allow for quick and cost-effective testing of concepts. The goal is to visualize and communicate the ideas in a tangible form.

- **Test:**

Prototypes are then tested with real users to gather feedback and insights. Testing helps designers understand how users interact with the proposed solutions and identify strengths and weaknesses. It often involves usability testing and may reveal the need for adjustments.

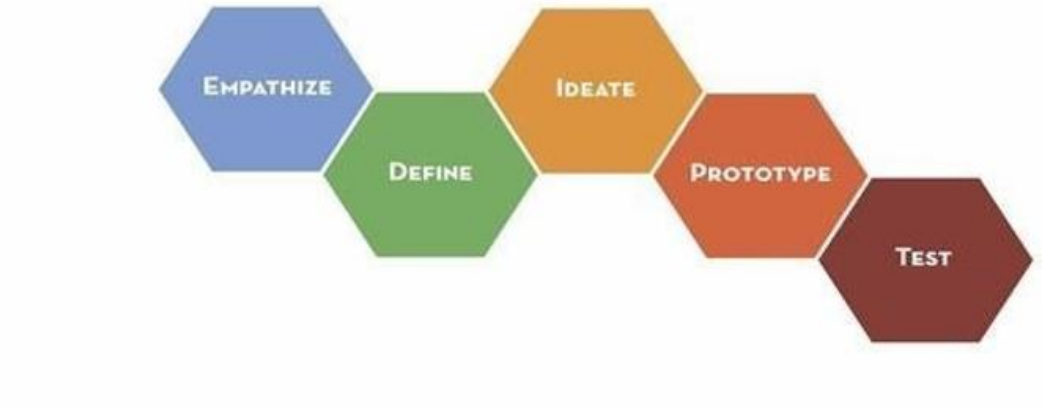


Figure for design thinking stages

- **User-centered design**

User-centered design (UCD) is an iterative design process in which designers focus on the users and their needs in each phase of the design process. In UCD, design teams involve users throughout the design process via a variety of research and design techniques, to create highly usable and accessible products for them.

The following are the general phases of the UCD process:

- ✓ Specify the context of use: Identify the people who will use the product, what they will use it for, and under what conditions they will use it.
- ✓ Specify requirements: Identify any business requirements or user goals that must be met for the product to be successful.
- ✓ Create design solutions: This part of the process may be done in stages, building from a rough concept to a complete design.
- ✓ Evaluate designs: Evaluation - ideally through usability testing with actual users - is as integral as quality testing is to good software development.

Figure for phases of the UCD process

- **Usability**

As we've said, usability is how easily a person can accomplish a given task with your product; it is the result of intentional, research-based, and user-tested design decisions made with one goal in mind: to make it as easy as possible for users to do what they need to do with the product

- **The "3-click rule"** is a concept related to website or user interface design that suggests that users should be able to find any information or page within a website with no more than three clicks or actions. In other words, if a user has to click through more than three links or perform more than three interactions to access the desired content, the website's navigation and organization may be considered inefficient or confusing.

- **Here are five common sources of feedback in UI/UX design:**

✓ **User Testing Feedback**: Feedback obtained directly from users who participate in usability testing sessions. Users interact with the product, and their observations, comments, and suggestions are valuable for identifying usability issues and areas for improvement.

✓ **Online Surveys and Questionnaires:** Feedback collected through surveys and questionnaires distributed to a wider user base. These tools allow designers to gather user opinions, satisfaction levels, and specific feedback about the user experience.

✓ **User Reviews and Ratings:** Feedback from users who provide reviews and ratings on app stores, review websites, or social media platforms. These reviews often highlight both positive and negative aspects of the user experience.

✓ **Customer Support Interactions:** Feedback from customer support channels, such as user inquiries, complaints, or help desk interactions. These interactions can reveal user frustrations and technical issues that need to be addressed.

✓ **Analytics and Heatmap Data:** Quantitative feedback from tools like Google Analytics, which provides insights into user behavior and interaction patterns. Heatmaps, click tracking, and user flow analysis can pinpoint areas of high user engagement and areas where users drop off or encounter issues.

These sources of feedback help UX designers gain a deeper understanding of user needs, preferences, and pain points, which, in turn, informs design decisions and drives continuous improvement in the user experience.

Practical Activity 3.1.2: Use Figma prototyping tool

Tasks:

1: Answer the question below:

As a UX designer 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.

2: Read the key readings 3.1.1 regarding to the importance of figma in UI/UX design

3: create a Figma account and access the platform through a web browser.

4: Install Figma's desktop application if necessary

5.Perform the given practical exercises and projects on using the different Figma components interfaces

6.Present your works to the trainer or colleague.

Key readings 3.2.1.: Use of Figma prototyping tool

- **Steps to create a Figma prototype**

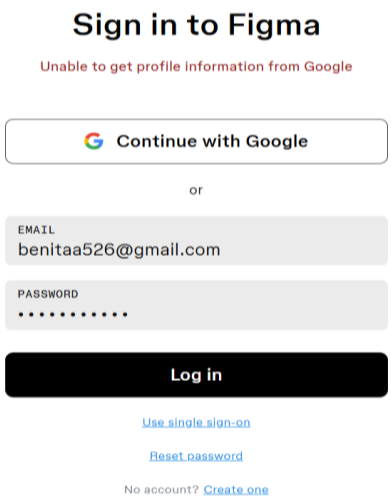
✓ **Setting up Figma**

Visit the Figma Website:

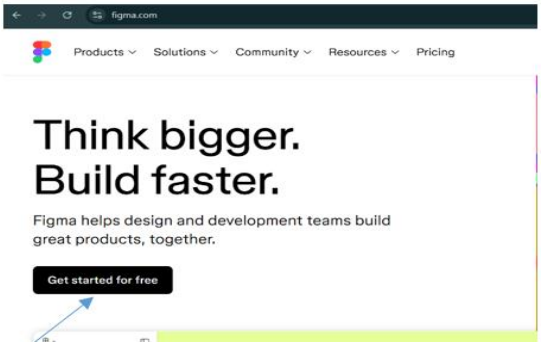
Open your web browser and go to the Figma website. You can access it at https://www.figma.com/.

Sign Up or Log in:

If you don't already have a Figma account, you'll need to sign up for one. Click the "Sign Up for Free" button and provide the required information, including your name, email address, and password. If you already have an account, simply log in.

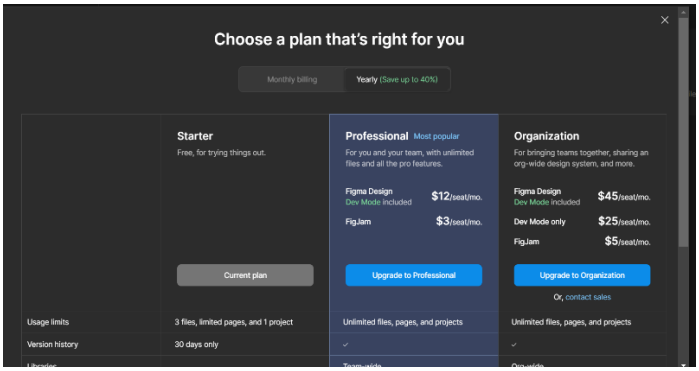


You can login using valid Email account, or create figma account



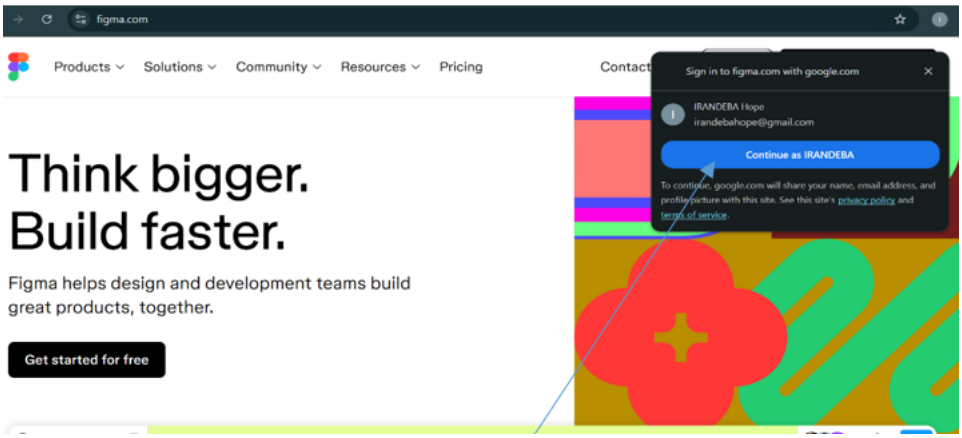
Choose a Plan:

Figma offers both free and paid plans. Choose the plan that suits your needs. The free plan provides access to many features, while the paid plans offer additional benefits such as unlimited projects and team collaboration tools. Make your selection and continue.



Verify Your Email (if required):

Depending on the sign-up process, you may need to verify your email address by clicking a link sent to your inbox. Follow the email verification instructions.

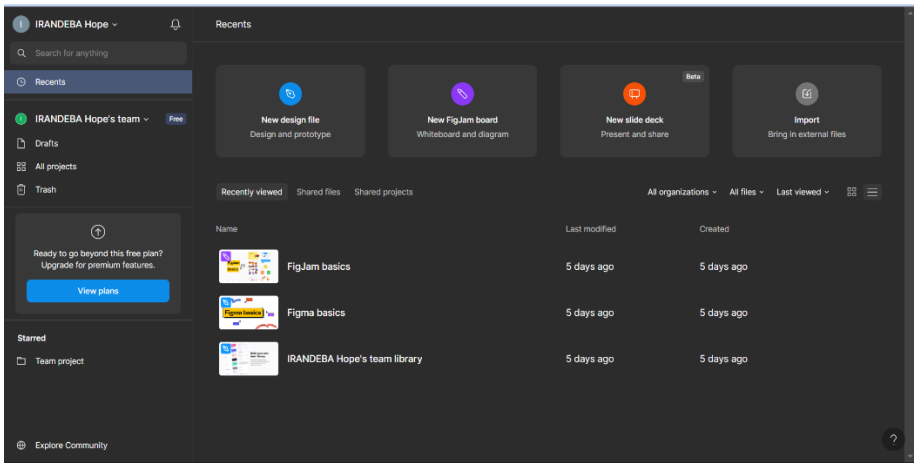


Download and Install the Figma Desktop App (Optional):

Figma can be used both as a web application and a desktop app. To download and install the desktop app (available for Windows and macOS), go to the Figma Downloads page and follow the instructions. Alternatively, you can use Figma directly in your web browser.

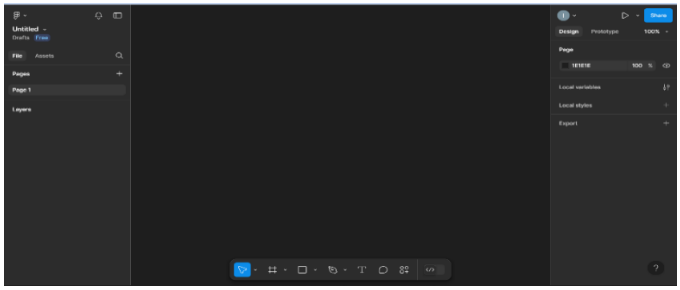
Launch Figma:

After installation (if you chose to use the desktop app), launch Figma by clicking on the application icon. If you're using the web version, simply open your browser and visit https://www.figma.com/, then log in with your Figma credentials.



Explore the Interface:

Once you're in Figma, take some time to explore the interface. Familiarize yourself with the canvas, frames, menu options, layers panel, design panel, and other elements mentioned in the previous explanations.

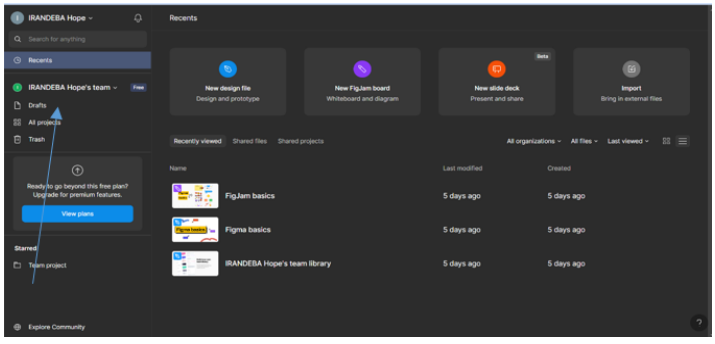


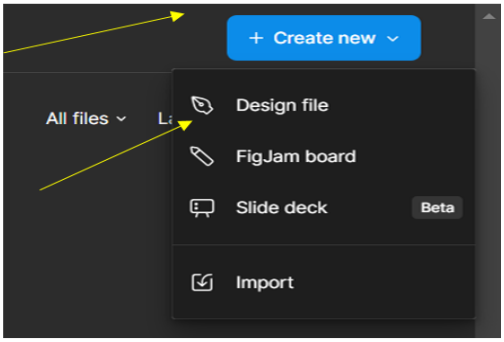
Customize Preferences (Optional):

You can customize Figma's preferences and settings to tailor the tool to your liking. This includes options for grid settings, keyboard shortcuts, and more. Access the preferences through the menu or application settings, depending on your platform.

Start a New Project:

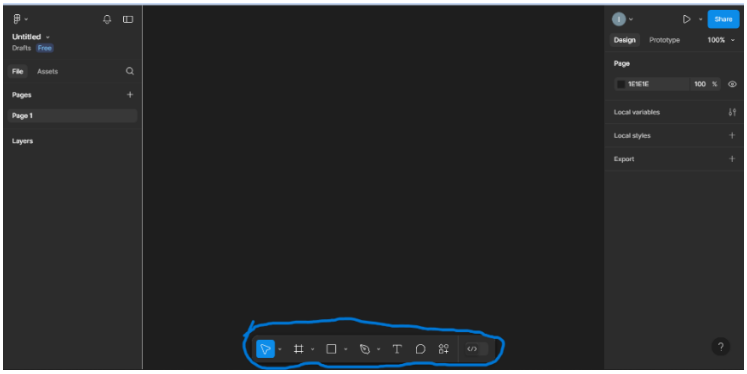
To start working on a UI/UX design project, you can either create a new project from scratch or open an existing Figma file if you have one. Use the "Create New File" option to set up a new project with the desired canvas dimensions.

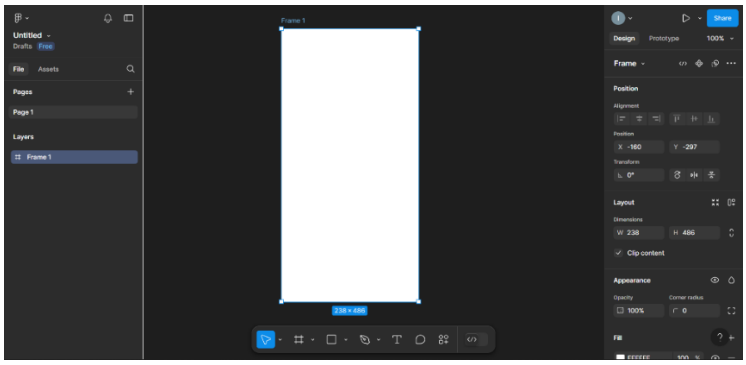




Begin Designing:

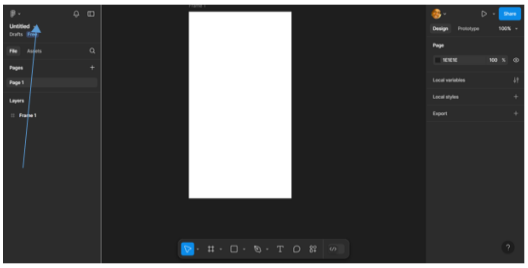
With Figma installed and your project set up, you can start designing your user interface and user experience. Use the various design tools, create frames, import assets, and apply styles to bring your design ideas to life.





Save Your Work:

Figma automatically saves your work as you go along. However, you can also save versions of your project at key milestones for version control and backup purposes.



- **Collaborate and Share (Optional):**

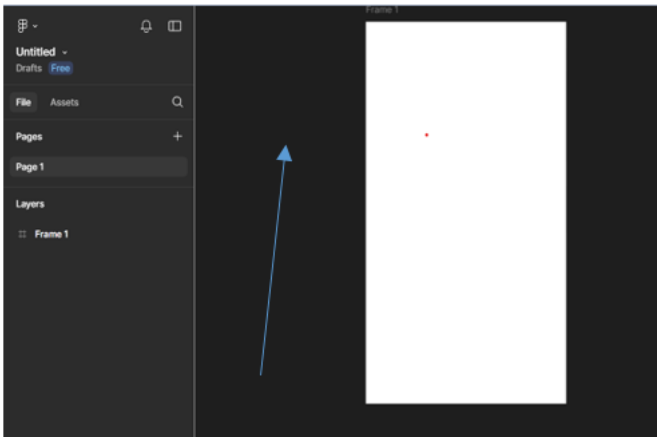
Figma is built for collaboration. You can invite team members or clients to your project, share design previews, and work together in real-time.

By following these steps, you'll successfully install Figma, set up your account, and be ready to use it for UI/UX design projects.

✓ **Creating different Figma interfaces**

- **Canvas:**

The canvas in Figma is essentially the blank space where you create and arrange your design elements. There are no specific steps to create a canvas; it's the default workspace provided when you open a new Figma file.



- **Frames:**

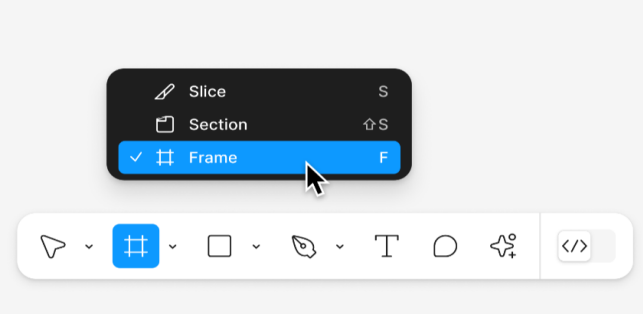
Frames are containers for your design elements.

To create a frame:

Select the "Frame" tool in the toolbar (or press F on your keyboard).

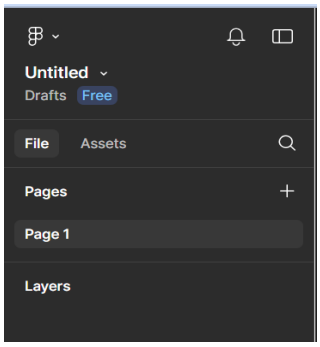
Click and drag on the canvas to draw a frame manually.

You can also create frames by duplicating existing ones and modifying them to suit your needs.



Menu:

Figma has various menus for performing actions like File, Edit, View, and more. The menu bar is a standard part of the Figma interface and is always visible at the top of the window.



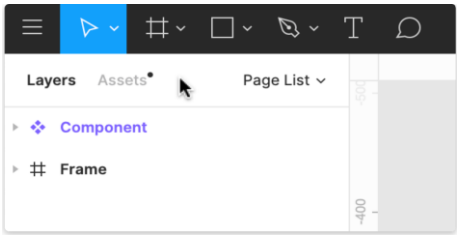
Layers:

Layers represent individual design elements within a frame.

To create and manage layers:

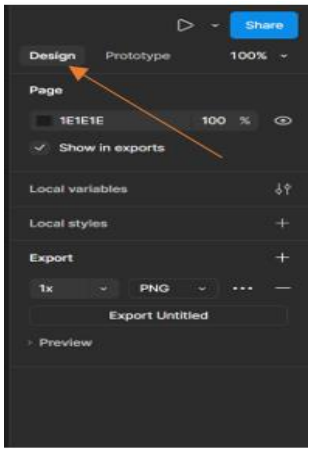
Use the various design tools (e.g., Text, Shape, Image) to add elements to your frame.

Layers are automatically created when you add new elements, and you can rearrange them in the Layers panel on the left.



Design Panel:

The Design Panel allows you to adjust the properties of selected design elements. It's always visible on the right side of the Figma interface when you select an element.



- **Pages:**

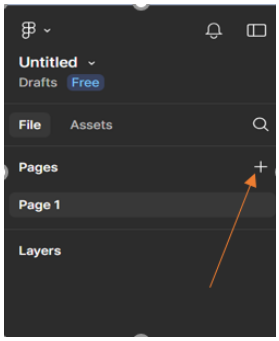
Pages are used to organize different sections or views of your design.

To create and manage pages:

Click the "Pages" panel on the left.

Click the "+" icon to add a new page.

Name your page and organize your frames accordingly.



- **Inspect Panel:**

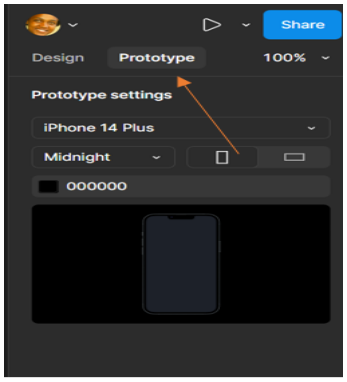
The Inspect Panel allows developers and collaborators to view details about your design, including measurements and specifications. It's typically used when sharing designs for development. You don't create or manage this panel directly; it's a built-in feature.

- **Options:**

Options for various design tools and actions are available in the top toolbar or contextual menus. For example, when you select a text element, options for text formatting will appear in the top toolbar.

- **Prototype:**

To create interactive prototypes in Figma: Select a frame and click the "Prototype" tab on the right sidebar. Connect frames with arrows to simulate user flows and interactions. Set up triggers and actions to define how the prototype behaves.



- **Assets:**

Assets in Figma can refer to reusable components, colors, text styles, and more.

To create and manage assets:

Use the "Components" and "Styles" panels on the right to create and organize reusable elements.

You can create and save text styles, color styles, and component libraries for consistent design.

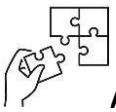
Remember that Figma provides a flexible and intuitive interface for UI/UX design, and the steps mentioned above are part of the standard workflow. Your specific design process may vary depending on the project and your team's requirements

✓ **Using Figma Mirror App**

- Download the mobile version app from the play store or iOS store whichever OS you are using.
- After the downloading is done, then sign in using the credentials by which you have logged in to your pc.
- Now select a frame from your designs, on your desktop, and it will be mirrored in your device you can also use the Figma mirror app in the browser as well to do so you have to open Figma mirror in your browser and then follow the same time steps followed above, and your design will be mirrored.

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.
- 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.

You are a UI/UX designer working on the redesign of a mobile banking application for a financial services company. The stakeholders, including project managers and key decision-makers, have requested a live demonstration of the mobile app design. To facilitate this, you decide to create a Figma Mirror link to showcase the design in real-time during a presentation meeting collaborative nature of the design process.

Indicative content 3.2: Sketch wireframe

Duration: 30 hrs

Theoretical Activity 3.2.1: Description of wireframe

Tasks:

1: Respond to the following questions:

i. What do you mean by the term wireframe?
ii. Differentiate low fidelity and high fidelity wireframe
iii. What are the tools used to create wireframe?

2: Learners present their findings to the trainer or whole class.

3: Ask any clarification to the trainer and for more clarification read key readings 3.2.1

Key readings:3.2.1.: Description of wireframe

- **Wireframe** is an essential part of the UI/UX design process, as it helps you quickly outline the structure and layout of a user interface before diving into detailed design work.

Wireframes can be created using various tools and methods, depending on your preferences and project requirements.

- **Here are some common ways and tools for creating wireframes:**

- ✓ **Pen and Paper:** You can start by sketching wireframes with a pen or pencil on paper. This is a quick and low-tech method for brainstorming ideas and getting the initial layout down.
- ✓ **Whiteboards:** Whiteboards or chalkboards are often used for collaborative wireframing sessions during in-person meetings or workshops. You can sketch out wireframes and easily make changes as you go.
- ✓ **Digital Wireframing Tools:**
- **Adobe XD:** A popular design and wireframing tool by Adobe.
- **Sketch:** A vector-based design tool for macOS.
- **Figma:** A collaborative web-based design tool.
- **Balsamic:** A tool specifically designed for creating wireframes with a hand-drawn look.
- **InVision:** A prototyping and collaboration tool that includes wireframing features.
- ✓ **Graphic Design Software:** You can use software like Adobe Photoshop or Adobe Illustrator to create wireframes, although these tools are more commonly used for high-fidelity designs.
- ✓ **Online Wireframing Tools**: There are various online tools and platforms designed specifically for wireframing. Some popular options include:
  - Lucidchart
  - Moqups
  - Wireframe.cc
  - Cacoo
  - Pencil Project (open-source)
- ✓ **Templates:** Some tools and software offer pre-made wireframe templates that you can customize for your project.
- ✓ **Hand-Drawn Tablets:** If you have a digital drawing tablet, you can create hand-drawn wireframes using software like Adobe Illustrator or a tool like Microsoft OneNote.
- ✓ **Mobile Apps:** There are also mobile apps available for wireframing, which can be handy if you need to sketch out ideas while on the go.
- The choice of method or tool depends on your familiarity with the tools, the complexity of your project, and whether you need to collaborate with others on the wireframing process. Many designers prefer using specialized digital wireframing tools because they offer features for quickly creating and revising wireframes, sharing them with team members, and easily transitioning to higher-fidelity design and prototyping stages.

- **There are three main types of wireframes, each with its own level of detail and purpose:**
- ✓ **Low-Fidelity Wireframes:**

Low-fidelity wireframes are the simplest and most abstract type of wireframe.
They focus on basic structure, layout, and placement of elements without much detail.
Commonly created using pen and paper or digital tools, low-fidelity wireframes are quick to produce and are ideal for early-stage brainstorming and ideation.
They do not include specific fonts, colors, or detailed content.
Low-fidelity wireframes are effective for exploring different layout options and getting feedback on the overall structure of a design.

- ✓ **Mid-Fidelity Wireframes:**

Mid-fidelity wireframes are more detailed than low-fidelity ones but are still relatively simple compared to high-fidelity wireframes.
They include more specific elements such as labeled buttons, placeholders for images and text, and some indication of content hierarchy.
While they maintain a focus on layout and structure, mid-fidelity wireframes introduce a bit of visual styling to help stakeholders and designers better understand the user interface.
Mid-fidelity wireframes are often created using design software or wireframing tools and are suitable for presenting concepts to clients, team members, or stakeholders.

- ✓ **High-Fidelity Wireframes:**

High-fidelity wireframes are the most detailed and visually refined type of wireframe.
They closely resemble the final user interface, incorporating specific fonts, colors, and more realistic content.
High-fidelity wireframes are often used in the later stages of the design process, just before transitioning into the prototyping or visual design phase.
They provide a more accurate representation of the final product, which can help in usability testing and user feedback sessions.
Creating high-fidelity wireframes may involve using design software, incorporating actual images and content, and considering user interactions.

- **Each type of wireframe serves a distinct purpose in the design process:**

Low-fidelity wireframes are best for quick ideation and initial concept exploration.
Mid-fidelity wireframes strike a balance between concept exploration and providing a clearer picture of the layout and structure.
High-fidelity wireframes are useful for refining the design, conducting user testing, and getting closer to the final product.

- The choice of wireframe type depends on the stage of your project and the goals you want to achieve. Starting with low-fidelity wireframes to explore ideas and gradually progressing to mid-fidelity and high-fidelity versions as the design matures is a common approach in the UI/UX design process.

Practical Activity 3.2.2: Sketch wireframe

Task:

1: 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 for any home page of the system that will allow users to login with their credentials.

2: Read carefully the task and key readings 3.2.1 and provide clear work instruction.

3: Observe the demonstration of the trainer how you can to create a new draft for figma file as new project. While demonstrating, follow the steps to create a new draft for figma file as new project and sketch wireframe of login page.

4: Navigate through the Figma interface and respect the procedures.

5: Verify whether Figma draft files and tools are used are clearly.

6: Ask for clarification to the trainer if any.

Key readings:3.2.2.: Sketch wireframe

- **Key characteristics of wireframes in UI/UX design include**

✓ **Simplicity:** Wireframes are intentionally simplified and lack the visual aesthetics of a finished design. This simplicity allows designers and stakeholders to focus on the structure and functionality of the interface without getting distracted by details.

✓ **Layout and Hierarchy:** Wireframes define the placement and hierarchy of elements on a screen, such as navigation menus, content areas, buttons, forms, and other user interface components. They help establish the spatial relationships between these elements.

✓ **Content Placeholder:** Instead of using actual content, wireframes often employ placeholders like "Lorem Ipsum" for text and generic shapes or boxes for images. The goal is to represent content structure and positioning without getting into the specifics of the actual content.

✓ **Navigation and Interaction:** Wireframes can indicate how users will navigate through the interface. This may include arrows or simple notes to show the flow between screens or pages. Additionally, they can suggest interactions, such as button clicks or form submissions.

✓ **Annotations:** Designers typically add annotations or explanatory notes to wireframes to provide context and explanations for elements, actions, or design decisions.

Wireframes are valuable in the UI/UX design process for several reasons

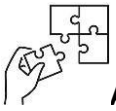
- ✓ **Conceptualizing Ideas:** They serve as a starting point for brainstorming and conceptualizing design ideas, allowing designers to explore different layouts and solutions.
- ✓ **Communication:** Wireframes facilitate effective communication between designers, stakeholders, and developers. They provide a shared visual reference for discussing design concepts and requirements.
- ✓ **User Testing:** Wireframes can be used in usability testing to gather early feedback on the structure and flow of a design before investing time in high-fidelity visual design.
- ✓ **Efficiency:** Creating wireframes is a quicker and more cost-effective way to iterate on design concepts compared to fully developed prototypes or visual designs.
- ✓ **Documentation:** Wireframes can be used as documentation for design specifications, guiding the development team in building the final product.

Steps to create wireframe in figma

- ✓ Open figma and sign in or create account if you don't have.
- ✓ Click the new file button on the dashboard to create the blank canvas
- ✓ Click the frame tool(F) in toolbar or press F to create frame
- ✓ Start adding the basic shapes
- ✓ Create layout and structure
- ✓ Add interactions

Points to Remember

- There are two types of wireframe which are **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.
- Navigating through a created figma file project to allow you to explore the project structure, access frame, pallet and components effectively.
- The steps to access through a created figma file project.



Application of learning 3.2. Sketch wireframe

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.

Indicative content 3.3: Sketch mockcup

Duration: 30 hrs

Theoretical Activity 3.3.1: Description of mockup

Tasks:

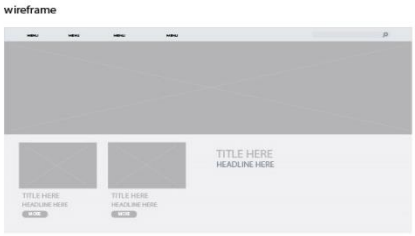
1: In your group formation answer the following questions:

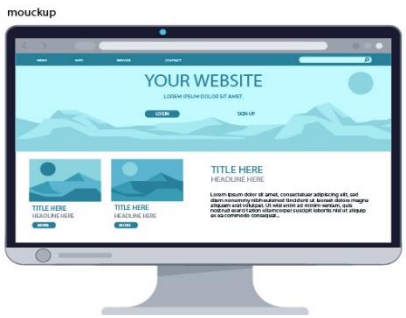
i. What do you mean by the term mockup?
ii. Differentiate wireframe and mockup?
iii. What is the relationship between wireframe and mockup?
iv. What are additional visual details that can be applied to a such mockup?

2: Present your findings to the trainer

3: Ask any clarification to the trainer

Key readings 3.3.1: Description of mockup





Mockup: is a visualization or design of an app, webpage or product that illustrate what the final outcome might look like.

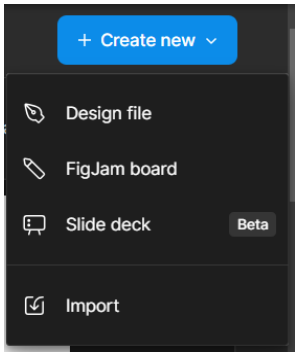
- **Setting up files**

✓ **Creating file**

Here's a basic overview of creating a "file" or project in Figma:

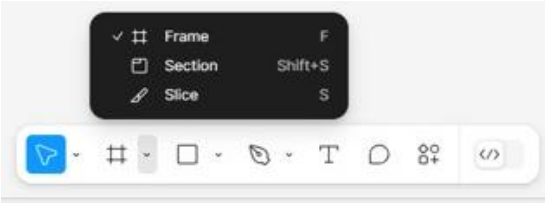
- **Sign in or Create an Account:** If you haven't already, sign in to your Figma account or create one.
- **Access Figma Dashboard:** After signing in, you'll land on your Figma dashboard. This is the starting point for creating and managing your design projects.
- **Create a New File/Project:**
  Click the "+" button or "New File" button to start a new design project.
  You can also duplicate an existing file as a starting point for a new project.

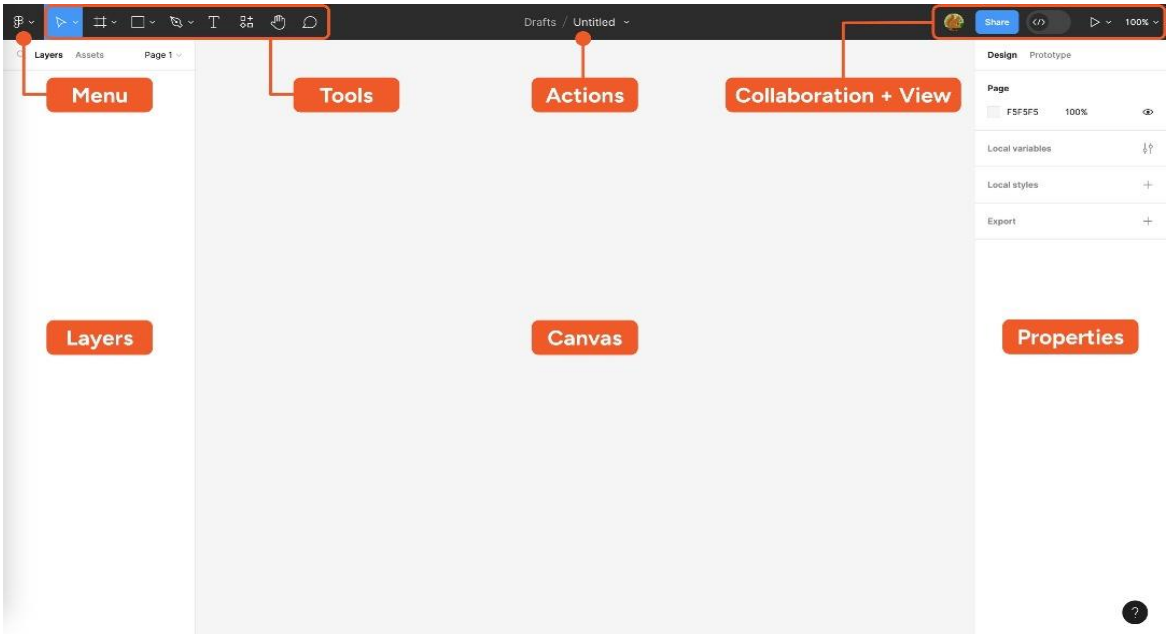
- **Choose Project Type:** Figma allows you to create different types of design files, including frames, design files, and more. Select the type that suits your project.
- **Set up Your Canvas:** Once you've created a new file, you'll have a blank canvas to work on. Customize the canvas size, layout, or orientation according to your project requirements.
- **Start Designing:** You can start adding design elements, such as shapes, text, images, and more, to your canvas. Figma provides various design tools and features to assist you in creating your designs.
- **Save and Manage Your Work:** Your work in Figma is auto-saved, and you can access it from your Figma dashboard at any time. Your projects are stored in your Figma account, and you can organize them into teams, projects, and files.



✓ **Create and edit frame**

Frame: serve as the canvas for your creativity, acting as container that can take the shape of device screen or house elements like buttons.





How to create and edit frames in Figma:

- ✓ **Creating a Frame:**

- **Open a File:** First, open an existing Figma file or create a new one, as mentioned in the previous response.
- **Select the Frame Tool:**
  In the left-hand toolbar, you'll find a "Frame" tool. Click on it to select it.
- **Draw a Frame:**
- Click and drag on the canvas to draw a frame. This creates a rectangular or custom-shaped container.
- **Frame Settings:**
  After drawing a frame, you can adjust its properties in the right sidebar. You can change its name, dimensions, and other properties.
- **Editing a Frame:**
- **Select a Frame:**
  Click on a frame to select it. The frame will be outlined, and its properties will appear in the right sidebar.
- **Resize a Frame:**
  To resize a frame, hover over its edges or corners until you see the resize cursor. Click and drag to resize the frame as needed.

- **Edit Frame Properties:**
  In the right sidebar, you can edit the frame's properties, including its name, dimensions, and constraints. You can also set a background color, image, or gradient for the frame.

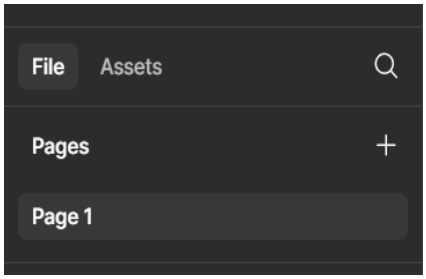
- **Add Content to the Frame:**
  To add content to a frame, drag and drop design elements (like shapes, text, or images) onto the frame. The frame will act as a container for these elements.

- **Create Nested Frames:**
  You can create frames within frames (nested frames) to organise your design hierarchically. To do this, draw a frame inside an existing frame.

- **Prototyping:**
  Frames are also used for creating interactive prototypes. You can add interactions and animations to elements within a frame.

- **Layer List:**
  Frames appear in the layer list on the left-hand sidebar. You can use this list to reorder, group, and manage frames and their content.

✓ **Creating pages**



Figma allows you to create multiple pages within a single design file. These pages help you organize and structure your design work, particularly for larger projects or multiple screens.

How to create pages in Figma:

- **Open Your Figma File:** Start by opening your existing Figma file or creating a new one.
- **View the Pages Panel:**
  On the left side of the Figma interface, you'll find the "Pages" panel. Click on it to open it.
- **Create a New Page:**
  In the "Pages" panel, you'll see an existing "Page 1" (or similar). To create a new page, click the "New Page" button. It looks like a "+" symbol or "Add Page" button.
- **Name Your Page:**
  After creating a new page, give it a meaningful name by double-clicking on "Page 2" (or similar) and entering your desired name. You can name the pages based on the content or purpose, such as "Homepage," "Contact Us," or "Mobile Designs."
- **Delete Pages:**
  If you want to remove a page, right-click on the page name in the "Pages" panel and select "Delete Page." Be careful, as this action is irreversible.

Using multiple pages in Figma allows you to manage and present different sections or screens of your design project effectively. It's especially useful when working on complex web or app designs with various components or pages.

- **Management of layers**

Managing layers in Figma is an essential part of organizing and structuring your design work. Layers help you control the order and visibility of elements within your designs. how to manage layers in Figma:?

✓ **Layers Panel:**

On the left side of the Figma interface, you'll find the "Layers" panel. This panel provides an overview of all the layers in your design, and it's a central place for managing them.

✓ **Selecting and Reordering Layers:**

Click on an element in the canvas to select it. The corresponding layer in the "Layers" panel will be highlighted.

To reorder a layer, simply click and drag it to a new position in the list. The order in the "Layers" panel determines the stacking order on the canvas.

✓ **Grouping Layers:**

To organize your layers, you can group related elements together. Select multiple layers in the "Layers" panel, right-click, and choose "Group Selection." This creates a new group layer that can be expanded or collapsed in the "Layers" panel.

✓ **Renaming Layers:**

Double-click on a layer's name in the "Layers" panel to rename it. Giving layers descriptive names makes it easier to identify them, especially in complex designs.

✓ **Hiding and Locking Layers:**

You can toggle the visibility of a layer on or off by clicking the eye icon next to the layer in the "Layers" panel. This is useful for focusing on specific elements during design.

The lock icon allows you to prevent accidental changes to a layer. Click the lock icon to lock or unlock a layer.

✓ **Frame Layers:**

Figma's frames are like containers that can hold multiple elements. You can create frame layers to group related elements together and maintain their structure.

✓ **Editing Elements:**

When you select a layer in the "Layers" panel and make changes to it, those changes are reflected on the canvas. This makes it easy to select and edit elements, especially when they are overlapping

- **Application of contents in design**

✓ **Adding predefined shapes**

In Figma, you can easily add predefined shapes to your design by using the shape tools available in the toolbar. Here's how to add predefined shapes in Figma:

- **Open Figma:**
  Open Figma and create a new or open an existing design file.
- **Select a Shape Tool:**
  In the left-hand toolbar, you'll find a set of shape tools. These tools allow you to draw various predefined shapes. The most common shape tools are the Rectangle, Ellipse, and Polygon tools.
- **Choose a Shape:**
  Click on the shape tool you want to use. For example, if you want to add a rectangle, click on the "Rectangle" tool.
- **Draw the Shape:**
  Click and drag on the canvas to draw the shape. While dragging, you can hold the Shift key to maintain the proportions (for squares or circles).
- **Customize the Shape:**
  After drawing the shape, you can customize it using the options that appear in the right sidebar. You can change the fill color, stroke, border radius, and other properties.
- **Change Shape Type:**

If you want to change the type of shape, you can do so after drawing it. Select the shape, and in the right sidebar, you'll see options to switch between a rectangle, ellipse, or polygon, depending on the shape tool you initially used.

- **Rotate and Resize:**
  You can resize the shape by clicking and dragging its handles. To rotate the shape, hover over the corner handle until you see the rotation cursor and then drag to rotate.
- **Add Text and Other Elements:**
  You can add text, images, or other design elements to the shape or layer. Just drag and drop those elements onto the shape, and they will be contained within it.
- **Duplicate Shapes:**
  If you want to create multiple shapes of the same type, select the shape, press Ctrl (or Cmd on Mac) and drag to duplicate it.
- **Align and Distribute:**
  You can use Figma's alignment and distribution options to precisely position and arrange your shapes.
- **Grouping Shapes:**
  To group multiple shapes together, select them, right-click, and choose "Group Selection." This keeps them organized in the layer's panel.
- **Predefined Shapes in Libraries:**

If you're working with design libraries in Figma, you can access predefined shapes from those libraries. These libraries often include common UI elements and icons that you can drag and drop into your design.

✓ **Add custom shapes**

In Figma, you can add custom shapes by combining basic vector shapes, modifying them, or by importing custom vector graphics. Here's how to add custom shapes in Figma:

- **Combining Basic Shapes:**

You can create custom shapes by combining and manipulating basic shapes, such as rectangles, ellipses, and polygons. Here's how:

Select the "Rectangle," "Ellipse," or "Polygon" tool from the toolbar.

Draw the basic shape on the canvas.

Use the "Vector Editing" mode (by selecting the shape and clicking "Edit" in the right sidebar) to add, subtract, or intersect multiple shapes to create custom shapes.

- **Pen Tool:**
  Figma's Pen tool allows you to create custom shapes by drawing freeform paths. To use the Pen tool:
  Select the "Pen" tool from the toolbar.
  Click to create anchor points and drag to create curves. You can combine anchor points and curves to draw custom shapes.
- **Importing Custom Vector Graphics:**

Figma allows you to import custom vector graphics, which can be SVG files or copied vector paths from other design software. Here's how:

Choose "File" > "Import" and select your SVG file or copied vector path.

Position the imported vector graphic on the canvas and customize its properties in the right sidebar.

- **Vector Editing:**

  Use the vector editing tools in Figma to further customize your shapes:

  Select the shape you want to edit.

  Click "Edit" in the right sidebar to enter the vector editing mode.

  Here, you can manipulate anchor points and handles to modify the shape's path.

- **Combine Paths:**

  You can combine multiple shapes or paths to create custom shapes:

  Select the shapes you want to combine.

  Right-click and choose "Combine" from the context menu. You can use "Union," "Intersect," "Subtract," or "Exclude Overlap" to create different custom shapes.

- **Boolean Operations:**

  Figma supports Boolean operations for custom shape creation:

  Select two or more shapes or paths.

  Right-click and choose "Boolean" from the context menu to perform operations like "Union," "Intersect," "Subtract," or "Exclude Overlap."

- **Rotation and Scaling:**

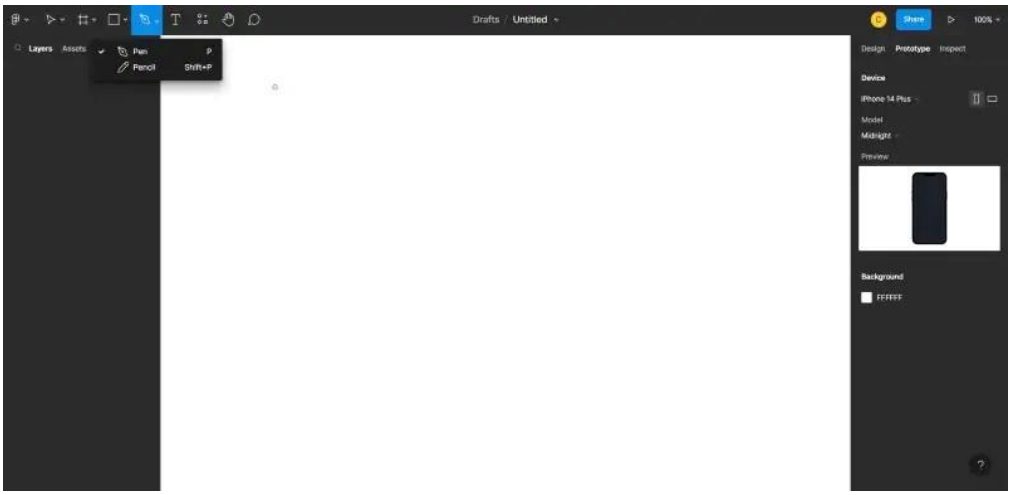
  You can rotate and scale shapes to create custom variations:

  Select the shape you want to modify.

  Drag the handles at the corners to resize, and hover over the corners to rotate.

  These methods give you a high degree of flexibility to create custom shapes in Figma. By combining basic shapes, paths, imported vector graphics, and manipulation tools, you can design a wide range of custom elements for your projects.

✓ **Pen tool**



how to use the Pen tool in Figma:

- **Select the Pen Tool:**
  In the Figma toolbar on the left side, you'll find the "Pen" tool. Click on it to select it.
- **Creating Anchor Points:**
  To create a path, click on the canvas where you want to start your shape. This creates the first anchor point.
- **Drawing Curves:**
  To create curves, click and drag. Click where you want the curve to end, and while holding the mouse button, drag to shape the curve. Release the mouse button when you're satisfied with the curve.
- **Creating Additional Anchor Points:**
  Continue clicking to create more anchor points, and click and drag to create curves as needed. This allows you to define the shape you want to create.
- **Closing a Path:**
  To close a path and complete a shape, hover over the initial anchor point. When you see a small circle icon, click to close the path.
- **Editing Paths:**
  You can edit anchor points and curves by selecting the path with the Selection tool and then clicking "Edit" in the right sidebar. This allows you to adjust the position of anchor points and their control handles to modify the shape.
- **Pen Tool Options:**
  In the right sidebar, you'll find options for the Pen tool. You can control the stroke, fill, and other properties of the path you're drawing.
- **Converting Points:**

You can convert anchor points between smooth (curve) and corner points. Select an anchor point and click the "Convert to Curve" or "Convert to Corner" option in the right sidebar.

✓ **Add Images**

In Figma, you can easily add images to your design project. how to do it:

- **Open Figma:**
  Open Figma and create a new design file or open an existing one.
- **Select the Frame or Canvas:**
  Click on the frame or canvas where you want to add the image. This is where the image will be placed.
- **Insert an Image:**
  There are a few ways to insert an image into your design:

- **Option 1: Drag and Drop:**
  Open the folder on your computer containing the image you want to add.
  Select the image file and drag it directly onto the Figma canvas or frame. Drop it in the desired location.
- **Option 2: Using the Toolbar:**
  Click on the "Insert" menu in the Figma toolbar at the top.
  Select "Image" from the dropdown menu.
  In the file dialog that appears, navigate to the image file on your computer and select it. Click "Open."
- **Position and Resize the Image:**
  After adding the image, you can click and drag it to position it within the frame or canvas.
  Resize the image by clicking and dragging the handles on the corners or sides of the image to make it larger or smaller.
- **Replace or Edit the Image:**
  If you want to replace or edit the image, select it on the canvas, and in the right sidebar, you can use the "Replace" option to select a different image file or use the "Edit" option to make adjustments to the image's properties, such as fill, border, or opacity.
- **Masking Images:**
  You can use shapes or frames to create masks for images. To do this, create a shape or frame on the canvas, position the image behind it, and then select both the shape or frame and the image. Right-click and choose "Mask."
- **Adjust Image Properties:**
  In the right sidebar, you can customize various properties of the image, such as its opacity, blend mode, effects, and more.
- **Import from URL:**

If the image you want to use is hosted online, you can insert it using its URL. Choose "Insert" > "Image" and paste the image URL in the dialog.

- **Smart Selection:**

Figma's smart selection allows you to select and edit individual layers or objects within the image. When you select an image, click on the specific part of the image you want to edit.

- ✓ **Masking**

Masking in Figma allows you to create interesting and visually appealing design effects by using one shape or object to hide or reveal parts of another shape or image. **To create a mask in Figma, follow these steps:**

- **Open Figma:**
  Open Figma and create a new design file or open an existing one.
- **Insert the Masking Object:**
  You will first need to insert the object that will serve as the mask (the shape that hides or reveals parts of the content). This can be a frame, a shape, or a vector object.
- **To insert a shape for masking:**
  Click on the "Rectangle," "Ellipse," or "Polygon" tool in the left toolbar.
  Draw the shape on the canvas. This will serve as the masking object.
- **Position and Resize the Mask:**
  Position the masking object on the canvas where you want the masking effect to occur. You can also resize it as needed.
- **Insert the Content to Be Masked:**
  Insert the content that you want to be masked within the area of the masking object. This can be an image, text, or any design element.
- **To insert content:**
  Click on the "Insert" menu in the Figma toolbar.
  Choose "Image" to insert an image, or select the appropriate tool to insert other design elements like text.
- **Position the Content:**
  Position the content so that it overlaps with the masking object. The content will be hidden or revealed according to the shape and location of the masking object.
- **Select Both the Masking Object and the Content:**
  Click on the masking object to select it.
  Hold down the Shift key and click on the content you want to be masked. This should select both the masking object and the content.
- **Create the Mask:**
  Right-click on the selected objects and choose "Mask" from the context menu.
- **Adjust the Mask:**
  You can further adjust the position and size of the masking object and the content as needed. Click and drag the masking object or the content to make adjustments.

- **Editing the Mask:**
  You can edit the masking effect by selecting the masking object and clicking "Edit" in the right sidebar. This allows you to modify the mask's properties, such as its fill and border.
- **Remove the Mask:**

If you want to remove the masking effect, select the masked content and click "Edit" in the right sidebar. Then click the "Unmask" button.

✓ **Effects and blending**

Figma offers a variety of effects and blending options that allow you to enhance and stylize your design elements. These effects and blending modes can be applied to shapes, images, and other objects in your Figma projects. Here's how to use effects and blending in Figma:

- **Applying Effects:**
- **Open Figma:**
  Open Figma and create a new design file or open an existing one.
- **Select an Object:**
  Click on the object (shape, text, image, etc.) to which you want to apply an effect.
- **Access the Effects Panel:**
  In the right sidebar, you'll find the "Effects" panel. Click on it to open the effects settings.
- **Add an Effect:**
  In the "Effects" panel, click the "+ Button" to add an effect to the selected object.
- **Choose an Effect:**
  You can choose from various effects, including "Drop Shadow," "Inner Shadow," "Layer Blur," "Background Blur," and "Color Overlay."
- **Configure the Effect:**
  Depending on the chosen effect, you can configure parameters like blur radius, color, opacity, angle, spread, and more. Adjust these settings to achieve the desired visual effect.
- **Apply Multiple Effects:**
  You can apply multiple effects to a single object. To add additional effects, click the "+ Button" in the "Effects" panel again and select the effect you want to add.
- **Rearrange Effects:**
  You can change the order of effects by dragging and dropping them in the "Effects" panel. The order can impact how the effects are applied.
- **Blending Modes:**
  Figma also provides blending modes, which determine how objects interact with the layers beneath them. Blending modes can be applied to entire objects, not just effects. To use blending modes:
- **Select an Object:**
  Click on the object to which you want to apply a blending mode.

- **Access the Blending Mode Dropdown:**
  In the right sidebar, you'll find the "Blending" dropdown menu, which allows you to choose a blending mode.
- **Choose a Blending Mode:**
  Select a blending mode from the dropdown. There are various options, such as "Normal," "Multiply," "Screen," "Overlay," "Darken," and more.
- **Preview the Result:**
  As you select different blending modes, you'll see how they affect the appearance of the object in relation to the layers beneath it.
- **Editing and Removing Effects:**

You can edit or remove effects by selecting the object and making changes in the "Effects" panel. To remove an effect, click the "Delete" button (trash can icon) next to the effect you want to remove.

You can use Effects and blending modes in Figma to add depth, shadows, highlights, and other visual enhancements to your design elements.

✓ **Management of layout (Auto-layout, Grid, Row, Columns)**

Figma provides powerful layout features, including Auto Layout, Grids, Rows, and Columns, that help you create responsive and organized designs. Here's how to manage layouts in Figma:

- **Auto Layout:**

Auto Layout is a feature in Figma that allows you to create responsive and adaptive designs. It's particularly useful for components that need to adapt to changing content or screen sizes.

To use Auto Layout, select a frame or a group of objects, and then click the "Auto Layout" button in the right sidebar. You can choose the direction (horizontal or vertical) in which the objects should stack or flow.

You can nest Auto Layout frames within each other, creating complex and responsive design systems.

Within an Auto Layout frame, you can add padding and spacing, set alignment, and distribute objects evenly.

- **Grids:**

Grids help you create well-structured and organized layouts. They are particularly useful for designing interfaces, web pages, and other grid-based designs.

To create a grid, select the frame or canvas where you want the grid to appear.

In the right sidebar, click on "Layout Grid."

Choose the grid type (columns, rows, or grid) and set the number of columns or rows, gutter (spacing), and margin. You can also define column or row widths, which can be fixed or flexible.

Grids are useful for aligning and positioning elements in a structured manner.

- **Rows and Columns:**

Rows and columns are built into Figma's Auto Layout feature. You can use them to create ordered and structured layouts for components and sections.

Create a frame or group that you want to use for rows or columns.

Apply Auto Layout to the frame or group.

Set the direction to either horizontal (for rows) or vertical (for columns).

You can add elements within the frame, and they will automatically align and space themselves according to the chosen direction.

Rows and columns are useful for creating lists, navigation menus, and other structured layouts.

- **Nesting Layouts:**

Figma allows you to nest different layout types within one another. For example, you can nest an Auto Layout frame within a Grid, or create a Grid within an Auto Layout frame. This flexibility gives you fine control over your designs.

- **Flexibility and Responsiveness:**

These layout features in Figma are highly flexible and allow you to create responsive designs that adapt to various screen sizes. You can use constraints and resizing options to control how elements behave when the frame is resized.

- **Constraints:**

Constraints allow you to specify how elements within a frame should behave when the frame is resized. You can set constraints for both Auto Layout frames and non-Auto Layout frames.

Figma's layout features make it a powerful tool for creating responsive and structured designs, whether you're designing websites, mobile apps, or other user interfaces.

- **Creation of color palettes**

Creating and managing color palettes in Figma is an essential part of maintaining design consistency and efficiency in your projects. Here's how to create color palettes in Figma:

- ✓ **Open Figma:**

Open Figma and create a new design file or open an existing one where you want to create and manage color palettes.

- ✓ **Select the Swatches Panel:**

In the right sidebar, click on the "Swatches" panel. This is where you can manage and organize your color palettes.

- ✓ **Add a New Swatch:**

To create a new color in your palette, click the "+" button in the "Swatches" panel. This will add a new swatch.

4. Name the Swatch:

Double-click on the swatch to edit its name. Give it a descriptive name to make it easier to identify, such as "Primary," "Secondary," or specific color names like "Blue" or "Green."

- ✓ **Choose a Color:**

Click on the color swatch to open the color picker. You can choose a color using various methods, including entering a hex code, using the color wheel, or selecting from recent colors.

- ✓ **Add More Swatches:**

Continue adding swatches for the colors you want to include in your palette. Typically, you'll want to include a range of colors for various use cases, such as primary, secondary, accent, and text colors.

- ✓ **organize Swatches:**

  You can drag and drop swatches in the "Swatches" panel to rearrange them according to your preferred order. This can help you maintain a logical organization for your palette.

- ✓ **Create Global Styles:**

To ensure that your colors are consistent throughout your design, consider creating global color styles. In the "Swatches" panel, right-click on a swatch and choose "Create Style." This will create a global style that you can apply to objects, text, and shapes in your design.

- ✓ **Apply Colors:**

To use the colors from your palette, select an object or text element, and choose the desired color from the "Swatches" panel. You can apply colors to multiple elements at once.

- ✓ **Update Colors:**

- If you decide to change a color in your palette, simply update the color of the corresponding swatch in the "Swatches" panel. This will automatically update all objects and elements using that color.

- ✓ **Export Colors:**

- You can export your color palette as a JSON file by clicking the export icon in the "Swatches" panel. This allows you to share your palette with team members or use it in other design tools.

- **Creation of components**

- ✓ **Reusable input components**

Creating reusable input components in Figma is a great way to maintain consistency in your designs, save time, and make it easier to manage input fields like text boxes, buttons, and other interactive elements.

how to create reusable input components in Figma:

- **Open Figma:**

Open Figma and create a new design file or open an existing one where you want to create reusable input components.

- **Create the Input Component:**

Select the "Rectangle" tool or other shape tools to create the base shape of your input component. This shape will represent the input field itself.

Customize the shape to match the style you want for your input component. You can adjust the size, border radius, and fill color.

Add any additional elements to your input component, such as labels, icons, or placeholder text. These elements will help users understand the purpose of the input field.

- **Convert the Component to a Master Component:**

With the input component selected, click the "Create Component" button in the right sidebar. This will turn your input component into a master component that can be reused throughout your design.

- **Customize and Add Variants:**

Once you have a master component, you can create variants with different states or styles. For example, you can create variants for different input field types (e.g., text, email, password) or different interaction states (e.g., normal, focused, disabled).

To create variants, select the master component, go to the right sidebar, and click the "Create Variant" button. Customize the variant by making changes to its properties, like color, text, or behavior.

- **Use Auto Layout for Flexibility:**

If you want your input component to be responsive and adapt to different content, consider using Auto Layout. This allows you to define how the input component expands or shrinks based on its content.

Select the input component, enable Auto Layout in the right sidebar, and set constraints and spacing as needed.

- **Apply Global Styles (Optional):**

To ensure consistency, you can create global text styles for the text within your input components. This makes it easy to maintain consistent typography across your design.

Select the text within the input component, and in the right sidebar, click "Create Style." This will create a global text style that you can apply to other text elements.

- **Reuse the Input Component:**

You can now use your input component in your design by dragging and dropping it from the Assets panel into your canvas. Customize the component as needed to fit the specific context.

- **Update the Master Component:**

If you need to make changes to the input component, update the master component. Any changes made to the master component will be reflected in all instances of that component in your design.

By creating reusable input components and variants in Figma, you can save time and maintain consistency throughout your design projects, especially in UI/UX design where input fields are commonly used elements.

- ✓ **Reusable checkbox and radios**

Creating reusable checkbox and radio button components in Figma is a useful way to ensure consistency and save time in your UI/UX design projects.

Here are step-by-step instructions for creating reusable checkbox and radio button components in Figma:

- **Open Figma:**

Open Figma and create a new design file or open an existing one where you want to create reusable checkbox and radio button components.

- **Create the Checkbox and Radio Button Components:**

Use Figma's shape tools (such as the "Rectangle" tool) to create the basic shapes for your checkbox and radio button components. Customize the size, border radius, and appearance to match your design.

Add any additional elements, like labels, icons, or text, that should be associated with the checkbox and radio button.

- **Convert Components to Master Components:**

With each checkbox and radio button selected, click the "Create Component" button in the right sidebar. This action will turn your elements into master components that can be reused throughout your design.

- **Create Variants:**

To represent different states or styles for your checkbox and radio buttons (e.g., checked and unchecked states), you can create variants of the master components.

Select the master component, click the "Create Variant" button in the right sidebar, and customize the variants by adjusting properties like colors, shapes, and labels.

- **Organize Your Components:**

To keep your components organized, you can group them into a component set. This helps maintain a clear structure for your design project.

Create a component set by selecting the components and right-clicking to choose "Create Component Set.**"**

- **Apply Global Styles (Optional):**

If you're using text elements within your checkbox and radio button components, you can create global text styles to ensure consistent typography.

Select the text within the components, click "Create Style" in the right sidebar, and define a global text style that you can apply to other text elements.

- **Reuse the Components:**

You can now use your checkbox and radio button components in your design by dragging and dropping them from the Assets panel onto your canvas.

- **Update the Master Components:**

If you need to make changes to the checkbox and radio button components, update the master components. Any changes you make to the master components will automatically be reflected in all instances of those components throughout your design.

Creating reusable checkbox and radio button components in Figma is a valuable practice for maintaining design consistency and efficiency, especially in UI/UX design projects where these elements are commonly used.

✓ **Reusable button components**

Creating a reusable button in Figma involves creating a component that can be easily reused throughout your design. This allows you to make changes to the button in one place, and those changes will automatically update in all instances of the button in your design. **Here's how you can create a reusable button in Figma**:

- **Open Figma:**

If you don't have Figma installed, you can use the web version at www.figma.com.

- **Create a new frame:**

Start by creating a new frame where you will design your button. You can do this by clicking on the "Frame" tool or by using the "F" keyboard shortcut.

- **Design your button:**

Design your button within the frame. This can include setting the button's shape, size, colors, text, and any other elements you want to include in your button.

- **Convert the button to a component:**

Select the button by clicking on it.
In the right-hand panel, click on the "Create Component" button, which looks like a square with a "+" icon.
A new component will be created in your Assets panel.

- **Customize the component's properties:**

In the Assets panel, you can rename the component by double-clicking on its name and giving it a meaningful name (e.g., "Button").
You can also edit the main component to make changes to the button's design. Any changes made to the main component will be reflected in all instances of the button throughout your design.

- **Create instances of the button:**

To use the button in your design, simply drag and drop an instance of the button component onto your frames or artboards. You can do this from the Assets panel or by copying and pasting an instance.

- **Customize instances:**

You can customize individual instances of the button without affecting the main component. To do this, select an instance, make your changes, and those changes will be unique to that instance.

- **Maintain consistency:**

Since you've created a reusable button component, any changes you make to the main component will automatically update all instances of the button in your design, ensuring consistency.
That's it! You've created a reusable button in Figma. This approach is helpful for maintaining design consistency and efficiency in your projects, as you only need to update the main component to propagate changes to all instances of the button.

✓ **Content cards**

Creating content cards in Figma is a common design task for creating structured, visually appealing displays of content, such as articles, products, or any other type of content you want to feature. **Here's how to create content cards in Figma:**

- **Create a New Frame:**

Start by creating a new frame in Figma where you'll design your content card. You can use the "F" keyboard shortcut or click on the "Frame" tool.

- **Design the Card:**

Design the card within the frame. You can set the size, shape, background color, and other visual properties of the card. You can also include text, images, and any other elements relevant to your content. Make sure to keep a consistent style for your content cards to maintain design consistency across your project.

- **Group Elements:**

If your content card consists of multiple elements (e.g., text, images, buttons), group them together by selecting the elements and using the "Group" command (right-click > Group or Ctrl+G / Cmd+G). This makes it easier to manage and move the card elements as a whole.

- **Convert to Component:**

Once you've designed your content card, select the entire card or group, and convert it into a component. To do this, click on the "Create Component" button in the right-hand panel. This will create a reusable content card component that you can use throughout your design.

- **Customize the Component:**

In the Assets panel, you can rename the component to something like "Content Card" for easy identification.

Customize the component by editing the main component, just as you would with a button component. Changes made to the main component will update all instances of the content card.

- **Create Content Card Instances:**

To use the content card in your design, drag and drop instances of the component onto your frames or artboards. You can place multiple instances in different locations on your design.

- **Customize Individual Instances:**

You can customize individual instances of the content card without affecting the main component. Select an instance, make changes (e.g., update the text or image), and those changes will only apply to that instance.

- **Maintain Consistency:**

Any changes made to the main content card component will automatically update all instances, ensuring design consistency.

By following these steps, you'll be able to create and use reusable content card components in Figma, making it easier to design consistent layouts for your content-driven projects.

- **Application of mockup design**

✓ **Content sections**

Creating content sections in Figma involves organizing and designing different sections of a web page or application, each with a specific purpose or type of content. These sections could include headers, hero sections, feature sections, and more. **Here's how you can create content sections in Figma:**

Create a New Frame:

Start by creating a new frame where you will design your content sections. You can use the "F" keyboard shortcut or click on the "Frame" tool.

Design Your Sections:

Design each content section within the frame. Each section should have a clear purpose and may contain elements such as text, images, buttons, and other relevant content. Define the visual style, layout, and spacing for each section.

Group Elements:

If each content section consists of multiple elements (e.g., text, images, icons), group them together. This will make it easier to manage and move the elements as a whole.

Convert to Components:

Once you've designed a section, select the entire section or group of elements, and convert it into a component. Click on the "Create Component" button in the right-hand panel. This will create reusable section components.

Customize the Components:

In the Assets panel, rename the components to something descriptive, like "Header," "Hero Section," "Feature Section," etc. You can customize these components by editing the main component to match your design needs.

Create Section Instances:

To use these content sections in your design, drag and drop instances of the section components onto your frames or artboards. Place instances in different locations to create a complete page layout.

Customize Individual Instances:

You can customize individual instances of the content sections without affecting the main component. Select an instance, make changes (e.g., update the text, replace images), and those changes will only apply to that instance.

Maintain Consistency:

Any changes made to the main section components will automatically update all instances of that section, ensuring design consistency across your project.

By following these steps, you can easily create and use reusable content section components in Figma, streamlining the design process and ensuring a consistent look and feel throughout your web pages or applications.

✓ **Navigation bar**

Creating a navigation bar in Figma involves designing a user interface element that typically includes links or icons to navigate a website or application. **how you can create a navigation bar in Figma:**

- **Create a New Frame:**

Start by creating a new frame where you'll design your navigation bar. You can use the "F" keyboard shortcut or click on the "Frame" tool.

- **Design Your Navigation Bar:**

Design your navigation bar within the frame. A typical navigation bar includes elements like links, buttons, or icons. You can set the size, background color, and layout of your navigation bar.

- **Create Navigation Links:**

Add text or icons to represent your navigation links. Common links include "Home," "About," "Services," "Portfolio," "Contact," and so on. You can use the Text tool (T) to add text or import icons as needed.

- **Group Elements:**

If your navigation bar consists of multiple elements (e.g., links, icons), group them together by selecting the elements and using the "Group" command (right-click > Group or Ctrl+G / Cmd+G). This will help you manage and move the elements as a whole.

- **Convert to Components:**

Select the entire navigation bar or group of elements and convert it into a component by clicking the "Create Component" button in the right-hand panel. This will create a reusable navigation bar component.

- **Customize the Component:**

In the Assets panel, rename the component to something like "Navigation Bar" for easy identification.

Customize the component by editing the main component, adjusting its appearance, styling, and layout to match your design needs.

- **Create Navigation Bar Instances:**

To use the navigation bar in your design, drag and drop instances of the navigation bar component onto your frames or artboards. Place instances at the top of your pages for consistent navigation.

- **Customize Individual Instances:**

You can customize individual instances of the navigation bar without affecting the main component. Select an instance, make changes (e.g., update the text, change colors), and those changes will apply only to that instance.

- **Maintain Consistency:**

Any changes made to the main navigation bar component will automatically update all instances, ensuring design consistency across your project.

By following these steps, you can create and use a reusable navigation bar component in Figma, making it easier to maintain a consistent and user-friendly navigation structure in your web and app designs.

✓ **Sidebar menu**

Creating a sidebar menu in Figma is a common design task for web and app interfaces. A sidebar menu typically contains navigation links, icons, or other elements that allow users to access different sections or features of an application. **Here's how to create a sidebar menu in Figma:**

- **Create a New Frame:**

Start by creating a new frame where you'll design your sidebar menu. You can use the "F" keyboard shortcut or click on the "Frame" tool.

- **Design Your Sidebar:**

Design the sidebar within the frame. A typical sidebar menu includes a list of navigation links or icons, and you can set the size, background color, and layout of the sidebar.

- **Create Sidebar Items:**

Add items to your sidebar to represent navigation links or icons. Common items include "Dashboard," "Profile," "Settings," "Messages," and so on. You can use the Text tool (T) to add text or import icons as needed.

- **Group Elements:**

If your sidebar menu consists of multiple elements (e.g., items, icons), group them together by selecting the elements and using the "Group" command (right-click > Group or Ctrl+G / Cmd+G). This will help you manage and move the elements as a whole.

- **Convert to Components:**

Select the entire sidebar or group of elements and convert it into a component by clicking the "Create Component" button in the right-hand panel. This will create a reusable sidebar menu component.

- **Customize the Component:**

In the Assets panel, rename the component to something like "Sidebar Menu" for easy identification.

Customize the component by editing the main component, adjusting its appearance, styling, and layout to match your design needs.

- **Create Sidebar Menu Instances:**

To use the sidebar menu in your design, drag and drop instances of the sidebar menu component onto your frames or artboards. Place instances on the left side of your application for consistent navigation.

- **Customize Individual Instances:**

You can customize individual instances of the sidebar menu without affecting the main component. Select an instance, make changes (e.g., update the text, change colors), and those changes will apply only to that instance.

- **Maintain Consistency:**

Any changes made to the main sidebar menu component will automatically update all instances, ensuring design consistency across your project.
By following these steps, you can create and use a reusable sidebar menu component in Figma, making it easier to maintain a consistent navigation structure in your web and app designs.

- ✓ **Dropdown menu**

Creating a dropdown menu in Figma involves designing an interactive user interface element that allows users to select from a list of options that appear when a trigger (e.g., a button or text) is clicked or hovered over. **how to create a dropdown menu in Figma:**

- **Create a New Frame:**

Start by creating a new frame where you'll design your dropdown menu. You can use the "F" keyboard shortcut or click on the "Frame" tool.

- **Design the Dropdown Trigger:**

Design the element that will trigger the dropdown menu. Common choices are buttons, text links, or icons. You can set the size, style, and appearance of the trigger element.

- **Design the Dropdown Menu:**

Design the dropdown menu that will appear when the trigger is activated. The menu typically includes a list of options or items. You can set the size, background color, and style of the menu.

- **Create Dropdown Menu Items:**

Add the menu items to your dropdown menu. These are the options that users can select. Use the Text tool (T) to add labels for each item. You can also create a group for each menu item if it consists of multiple elements (e.g., text and icons).

- **Hide the Dropdown Menu Initially:**

By default, the dropdown menu should be hidden. You can do this by setting its opacity to 0% in the Layers panel. This way, it won't be visible until the trigger activates it.
Create Interactions:

To make the dropdown interactive, select the trigger element, go to the "Prototype" tab in the right-hand panel, and add interactions. Typically, you'll set the interaction to "On Click" or "On Hover," and the action will be to change the opacity of the dropdown menu from 0% to 100%. You can also set an "Ease Out" animation for a smooth appearance.

- ✓ **Design simple online shopping platform with Items listing, cart, checkout**

Designing a simple online shopping platform with item listing, cart, and checkout in Figma involves creating multiple frames and components. **Here's a step-by-step guide to create such a design:**

- **Create a New Frame:**

Start by creating a new frame that represents the main screen of your online shopping platform. This will be the canvas where you'll design the entire interface.

- **Design the Header:**

At the top of your frame, design a header that includes a logo, navigation links (e.g., Home, Shop, Cart), and a search bar.
Design the Item Listing:

Below the header, create a section for listing items. Design product cards that include images, titles, descriptions, prices, and "Add to Cart" buttons. Group each product card together.

- **Convert Item Cards to Components:**

Convert the product cards into components. This will allow you to reuse them throughout the design. Make sure to name them descriptively (e.g., "Product Card").

- **Create a Sidebar for the Cart:**

On the right or left side of the frame, create a sidebar for the shopping cart. Include a "Cart" title, a list of items in the cart, subtotals, and a "Checkout" button.

- **Design the Cart Items:**

Design individual cart items that include product thumbnails, titles, quantities, and prices. Group each cart item.

- **Convert Cart Items to Components:**

Convert the cart items into components (e.g., "Cart Item").
Add Interactions for Adding to Cart:

For each "Add to Cart" button on the item listing, set up interactions that add the selected item to the shopping cart. Use Figma's prototyping tools to create a transition to the cart section.

- **Create a Checkout Page:**

Design a separate frame that represents the checkout page. Include a summary of the items in the cart, a form for shipping information, and a "Place Order" button.

- **Design Buttons and Form Elements:**

Design buttons, input fields, checkboxes, and other form elements for the checkout process. Convert them into components for consistency.

- **Wire Up Checkout Button:**

Set up an interaction for the "Place Order" button on the checkout page that completes the checkout process, such as confirming the order or navigating to a "Thank You" page.

- **Create Components for UI Elements:**

Create components for UI elements you've used, such as buttons, headers, and form fields, to maintain consistency.

- **Add Hover and Click States:**

If desired, add hover and click states to buttons or interactive elements to improve user experience.

- **Design a Thank You Page:**

Create a frame for a "Thank You" page to show a confirmation message after a successful order. Include a "Back to Shopping" link or button.

- **Link Frames Together:**

Use Figma's prototyping features to link frames together to create a user flow. For instance, you can link the product cards to the cart, the cart to the checkout page, and the checkout page to the thank you page.

- **Add Annotations (Optional):**

To provide additional context, you can use Figma's annotation feature to add notes, comments, or explanations to your design.

- **Preview Your Design:**

Use Figma's preview mode to interact with your design and ensure the flow and interactions work as intended.

- **Share and Collaborate:**

Share your Figma project with collaborators, stakeholders, or clients for feedback and collaboration.

By following these steps, you can design a simple online shopping platform with item listing, cart, and checkout in Figma. Be sure to focus on usability, aesthetics, and consistency throughout the design process.

- ✓ **Design authentication pages**

Designing authentication pages, such as login and registration screens, in Figma is a common task for web and app designers. Here's how you can create these pages in Figma:

- **Create a New Frame:**

Start by creating a new frame where you'll design your authentication pages. This can be the canvas for your entire authentication flow.

- **Design the Login Page:**

Header: Design a header at the top of the page, typically with a logo and a link to the home page.
Form: Create a form for users to enter their login credentials. Include input fields for the username or email and password, along with a "Login" button.

"Forgot Password" Link: Add a link or button that allows users to reset their password if they forget it.

"Register" Link: Include a link to the registration page for new users.
Social Media Login: Optionally, you can add social media login buttons (e.g., "Log in with Facebook," "Log in with Google").

- **Design the Registration Page:**

Header: Include a header similar to the login page.
Form: Create a registration form with input fields for user details, including name, email, password, and any additional required information.
"Terms and Conditions" Link: Add a link to your terms and conditions or privacy policy.
"Login" Link: Include a link to the login page for existing users.Social Media Registration: Optionally, you can add social media registration buttons.

- **Add Form Fields and Buttons:**

Use Figma's text and shape tools to create input fields, buttons, and other form elements. Customize the style of these elements to match your design's aesthetics.

- **Use Components:**

Convert form elements like buttons, input fields, and labels into components. This allows for easy reuse and maintenance of consistent design elements.

- **Set Up Interactions:**

Use Figma's interactive features to link the "Login" and "Register" buttons to their respective pages. You can set transitions to navigate between frames.

- **Create a Shared Style Library:**

To maintain consistency, create a shared style library for text styles, colors, and other design elements. This helps ensure that your authentication pages are visually cohesive.

- **Design Error Messages and Notifications:**

Create placeholders for error messages, validation notifications, or success messages. These can be displayed when users enter incorrect information or successfully complete an action.

- **Add Accessibility Considerations:**

Ensure that your authentication pages are accessible to all users, including those with disabilities. Pay attention to text contrast, focus indicators, and keyboard navigation.

- **Test the Flow:**

Preview and test the authentication flow to ensure that it works smoothly. Check for any potential issues or user experience improvements.

- **Share and Collaborate:**

Share your Figma project with collaborators, stakeholders, or clients for feedback and collaboration.

By following these steps, you can design effective and user-friendly authentication pages for your web or app project in Figma.

✓ **Design a B2B platform**

Designing a B2B (Business-to-Business) platform in Figma is a complex task that involves various elements such as user interfaces, workflows, and data visualization. I can provide you with a basic outline of how to get started with the design process in Figma. Keep in mind that this is a simplified overview, and a full B2B platform design would require a detailed understanding of your specific business needs and user requirements.

- **Project Setup:**

Create a new Figma project for your B2B platform design.

Define the project goals, target audience, and specific user personas.

- **User Flows and Wireframes:**

Begin with user flow diagrams to map out the different processes and interactions within your platform.

Create wireframes for the main pages and features of your platform, such as the homepage, product listings, search results, user profiles, and checkout.

- **Information Architecture:**

Define the structure of your platform, including the main navigation, menus, and how data is organized.
Use Figma frames to represent different sections of your platform.

- **UI Design:**

Design the user interface elements such as buttons, forms, input fields, icons, and typography.
Create a style guide to maintain design consistency across the platform.

- **Homepage Design:**

Start with the design of the platform's homepage, which is often the first point of contact for users.
Include a header with the platform's logo, navigation, and search functionality.
Showcase featured products or services.
Add sections for news, updates, or promotions.

- **Product Listings and Search Results:**

Design how products or services will be displayed in listings.
Include filters and sorting options for users to refine their search.
Create detailed product pages with images, descriptions, and pricing information.

- **User Profiles:**

Design user profiles where businesses can manage their account information.
Include sections for order history, saved items, and account settings.

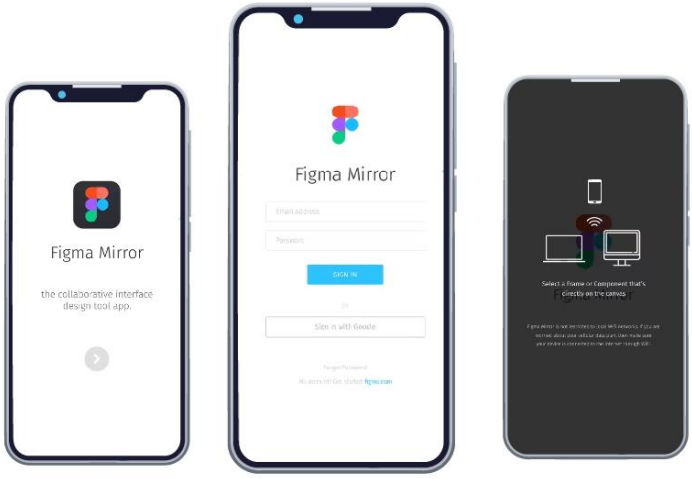
- **Checkout and Payment Process:**

Create the interface for the checkout process, including the shopping cart, shipping information, and payment options.
Ensure a seamless and user-friendly experience to increase conversion rates.

- **Messaging and Communication:** If your B2B platform includes communication features, design the messaging interface for businesses to interact with each other.
- **Dashboard and Analytics:** If applicable, design a dashboard for users to track their business performance and access analytics data.
- **Prototyping:** Use Figma's prototyping features to create interactive prototypes for user testing and feedback.
- **Iterate and Refine:** Gather feedback from stakeholders and potential users to make improvements. Iterate on your design based on the feedback received.
- **Handoff to Development:** Prepare design assets and specifications for developers. Use Figma's developer handoff features to facilitate the transition from design to development.

- **Testing and QA:** Test the developed platform to ensure it aligns with your design and functions correctly.
- **Launch:** Once testing and QA are complete, launch your B2B platform. Remember that the specific design elements and features will vary based on your B2B platform's niche and the needs of your target audience. This process is iterative, and ongoing feedback and refinement are essential for creating a successful B2B platform.

Test design using Figma Mirror



Figma Mirror is a mobile app that allows you to preview your Figma designs on a mobile device for real-time testing and prototyping. **Here are the steps to test your design using Figma Mirror in Figma:**

- **Install Figma Mirror:**

Download and install the "Figma Mirror" app on your mobile device from the App Store (for iOS) or Google Play (for Android).

- **Open Your Figma Design:**

Open your Figma project in the Figma web application.

- **Enable Figma Mirror:**

In the Figma web application, click on the "Share" button in the upper-right corner.

- **Share the Prototype:**

In the "Share" menu, you can create a prototype link that allows you to view and interact with your design on your mobile device.
Click on the "Create Prototype" button.

- **Configure Prototype Settings:**

In the prototype settings, you can set various options such as the starting frame, interaction settings, and device orientation. Make sure to select a starting frame for your prototype.

- **Generate Prototype Link:**

Click on the "Generate Link" button to create a shareable link for your prototype.

- **Open Figma Mirror on Your Mobile Device:**

Launch the Figma Mirror app on your mobile device.

- **Scan the QR Code:**

In the Figma Mirror app, tap on the "Scan QR Code" button and use your mobile device's camera to scan the QR code displayed on your computer screen.

- **View and Interact with Your Design:**

Your Figma design will now be displayed on your mobile device, and you can interact with it as if it were a real app or website.
Test Interactions and Navigation:
Use your mobile device to test different interactions, transitions, and user flows within your design.

- **Repeat as Needed:**

Make any necessary changes to your Figma design in the web application based on the feedback and iterate on the design as required.
Figma Mirror is a valuable tool for testing and prototyping your designs on real devices, providing a more realistic user experience and enabling you to identify any issues or improvements that may be needed.

Practical Activity 3.3.2: Sketch mockup

Task:

1: Dear trainee, you are requested 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.

2: Read carefully the task and provide clear work instruction.

3: Demonstrate how you can to create a new draft for figma file as new project. While demonstrating, show the steps to create a new draft for figma file as new project and sketch wireframe of login page.
4: You are requested to Navigate through the figma interface and respect the procedures.
5: Verify whether figma draft files and tools are used are clearly.
6: Ask for clarification to the trainer if any.

Key readings:3.3.2.: Sketch mockup

Sketch mockup

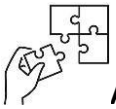
- **Key steps of sketching mockup**

✓ **Start a Figma Project:** Open Figma and initiate a new project.
✓ **Set Up Canvas:** Create a frame or artboard for your design, specifying the screen size.
✓ **Establish Layout:** Define a grid or layout structure for alignment and organisation.
✓ **Sketch Wireframes:** Create basic wireframes outlining the layout and content structure.
✓ **Add UI Elements:** Use Figma's shape tools to design containers for text, images, buttons, and other elements.
✓ **Incorporate Images and Icons:** Include placeholder images and icons to visualize their placement.
✓ **Apply Colors and Branding:** Define a color scheme and ensure consistent styling, aligning with your brand.
✓ **Design Navigation and Interactions:** Add menus, buttons, and links to show user flows and interactions.
✓ **Feedback, Iterate, and Finalize:** Gather feedback, make necessary changes, and finalize the mockup for development or sharing.

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

- The steps to access through a created figma file project.
- 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.

Indicative content 3.4: Presentation of Prototype

Duration: 30 hrs

Theoretical Activity 3.4.1: Description of prototype presentation

Tasks:

1: In your group formation, work on the activity to respond the following questions:

I. Differentiate prototype and prototyping?

II. What is the important of presenting prototype?

2: Present your findings to the trainer or classmates

3: For more clarification ask to the trainer to clarify your ideas.

4: For better understanding read the key readings 3.4.1

Key readings 3.4.1.: Description of prototype presentation

- **Here are the key steps for developing a prototype:**
  - ✓ **Design prototyping** in the field of UX/UI design is an essential practice that involves creating preliminary models of a product or system to evaluate, test, and refine the design. It plays a crucial role in the design process by allowing designers to gather insights, identify potential issues, and ensure that the final product aligns with user needs and expectations.

What is a Prototype?

- **A prototype** is essentially a simulated version of a product, serving as a tested to validate design concepts and gather feedback from users and stakeholders. Prototypes come in various forms, from simple sketches on paper to highly interactive digital models.
- **Key Elements of Prototyping**

Several key elements define the nature of a prototype:

- ✓ **Fidelity:** This refers to the level of detail and realism in a prototype. It can range from low-fidelity (basic sketches or wireframes) to high-fidelity (pixel-perfect, interactive representations).
- ✓ **Interactivity:** Interactivity measures the extent to which a prototype responds to user actions. Prototypes can be static (non-interactive) or dynamic (fully interactive).

- ✓ **Content:** Content pertains to the type and amount of information and media included in the prototype. It can range from placeholder content like lorem ipsum and dummy images to realistic, actual text and images.

- **Types of Prototypes**

There are various types of prototypes, each suitable for different stages of the design process:

- ✓ **Paper Prototyping:** This involves using low-fidelity sketches or drawings on paper or a digital whiteboard. It's particularly useful for brainstorming and early idea testing.

- ✓ **Digital Prototyping:** Digital prototypes, created using design software like Figma or Adobe XD, offer higher fidelity and allow for testing of user interfaces, interactions, and usability.

- ✓ **HTML Prototyping:** This advanced method uses code-based prototypes to mimic the final product's functionality. While it provides an accurate representation, it can be time-consuming.

Characteristics of Good Prototype

- ✓ **A well-crafted prototype exhibits the following characteristics:**
- **Clear:** It is easily understandable and intuitive for users and stakeholders.
- **Usable:** Navigation and interactions are smooth, making it easy for users to test and provide feedback.
- **Feedback-friendly:** The prototype is designed to facilitate user feedback, enabling effective iterations.
- **Actionable:** Insights gained from the prototype's testing lead to tangible improvements in the final design.

- ✓ **Benefits of Prototyping**

The practice of prototyping offers several advantages, including:

- **Early Feedback:** Prototypes allow designers to collect feedback from users and stakeholders at the early stages of the design process, minimizing the risk of costly errors later.
- **Improved Design:** Identifying and rectifying usability issues before the final product is built ensures a more user-friendly end result.
- **Reduced Risk:** Early testing helps mitigate the risk of costly mistakes and redesigns during development.
- **Enhanced Communication:** Prototypes enhance communication and collaboration between designers, developers, and stakeholders.

✓ **The Prototyping Process**

- **Define the Scope:** Clearly outline the objectives and goals of the prototype.
- **Select Fidelity:** Decide on the appropriate level of detail for the prototype, considering the design stage and available resources.
- **Create the Prototype:** Use suitable tools to build the prototype while adhering to UI design principles and patterns.
- **Test the Prototype:** Conduct usability testing with real or potential users, gathering data and feedback.

- **Refine the Prototype:** Analyze test results, identify strengths and weaknesses, and make necessary improvements.

- **Iterate:** Continue testing and refining the prototype until the desired outcome is achieved.

✓ **Best Practices for Prototyping**

To create effective prototypes, consider the following best practices:

- **Start Early:** Initiate prototyping early in the design process to catch and address issues promptly.
- **-Involve Users: Include** users in the testing process throughout the design stages.
- **Use Various Methods: Explore** different prototyping methods to test various aspects of the design.
- **Keep It Simple:** Focus on the essential elements and interactions in each iteration.
- **Leverage Prototypes for Communication:** Use prototypes to effectively communicate design ideas to stakeholders.

- **Prototyping** is a fundamental practice in UX/UI design that allows for the early validation of design concepts and the identification of potential usability issues. By following best practices and utilizing different types of prototypes, designers can create clear, usable, and actionable models that significantly enhance the design process and final product.

Practical Activity 3.4.2: Present prototype

Task:

1: Read carefully the asked task described below and do the following questions:

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.

2: Present your findings to the trainer or classmates.

3: Show how you can to create a new draft for figma file as new project. While demonstrating, proceed 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.

4: Navigate through the figma interface and respect the procedures.

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

6: Ask for clarification to the trainer if any.

Key readings:3.4.2.: Presentation of prototype

- **Steps in Developing a prototype:**

✓ **Research Phase**

In the context of designing a user-friendly online clothing store for young adults interested in fashion, the research phase is crucial for understanding your target audience and competition. **how you can practically approach this step:**

- **User Research:**

Practical Approach: Conduct interviews and surveys with the target audience, ideally young adults who enjoy fashion. Ask questions about their online shopping habits, preferences, pain points, and what they look for in a clothing website.

Practical Outcome: You'll gather specific insights, like whether they prefer mobile or desktop shopping, their favorite features in online stores, and any frustrations they face.

- **Competitive Analysis:**

Practical Approach: Identify key competitors in the online clothing retail space. Visit their websites, make purchases, and take note of the user experience. Look for strengths and weaknesses.

Practical Outcome: You'll understand what works well and where competitors might be lacking. For instance, you might notice that a competitor's website lacks a user-friendly mobile interface.

- **Idea Generation:**

Practical Approach: Gather your team for brainstorming sessions. Encourage everyone to suggest ideas for features and designs that would resonate with the target audience.
Practical Outcome: Generate a list of creative ideas such as a virtual dressing room, personalized fashion recommendations, or a user-friendly filter system based on fashion styles.

Scenario Relevance:
In the scenario of the clothing store project, practical user research will help you design a website tailored to your audience's preferences. Competitive analysis ensures you don't miss what's working well in the market, and idea generation sparks creative solutions to enhance the shopping experience.

Information Architecture and Wireframing

- ✓ **Information Architecture phase:**

User Research Analysis and Insights

After conducting user research, the next crucial step in the information architecture (IA) process involves analyzing the gathered data and extracting valuable insights. This involves identifying patterns, understanding user behavior, and uncovering key themes that will guide the IA structure.

✓ Key Points to Consider:

- Analyze user needs and goals:
- Identify the primary objectives and motivations of users.
- Understand what tasks they want to accomplish and the information they seek.

- Understand user behavior:
- Analyze common user actions, navigation patterns, and search queries.
- Identify areas of difficulty or confusion.

- Uncover key themes and patterns:
- Look for recurring topics, interests, and pain points among users.
- Identify common categories, groupings, and relationships between content.

Building a Site Structure

Based on the insights gained from user research, the next step is to create a site structure that effectively organizes the website's content. This involves defining the hierarchy of pages, categorizing content, and establishing clear navigation paths.

✓ **Key Points to Consider:**

- Create a sitemap:
- A visual representation of the website's content hierarchy.
- Shows how pages are related to each other and the overall structure of the site.
- Define content categories:
- Group related content together based on common themes, topics, or user needs.
- Ensure categories are clear, distinct, and mutually exclusive.
- Establish navigation paths:
- Design a logical and intuitive navigation system that allows users to easily find the content they need.
- Use clear labels, consistent placement, and breadcrumbs for better orientation.

Content Labeling and Information Architecture

Effective labeling plays a crucial role in information architecture, ensuring that content is accurately represented and easily discoverable. This involves choosing appropriate titles, descriptions, and keywords that align with user expectations and search behavior.

✓ **Key Points to Consider:**

- Use clear and concise labels:
- Avoid jargon or overly technical terms.
- Use language that is consistent with user terminology and search patterns.
- Write informative descriptions:
- Provide a brief overview of the content's purpose and key points.
- Include relevant keywords to improve search engine optimization (SEO).
- Consider user search behavior:
- Anticipate how users might search for specific content.
- Use appropriate keywords and phrases that align with their search patterns.

Information Architecture Tools

✓ **Practical Tips:**

- Involve stakeholders early on: Collaborate with team members, content creators, and subject matter experts to ensure alignment.
- Iterate and refine: Continuously evaluate and refine the IA based on user feedback and analytics data.
- Document the IA: Create clear documentation of the IA structure, navigation paths, and labeling guidelines.

Wireframing in Figma:

- **Steps in wireframing in Figma, starting with a low-fidelity wireframe to a high-fidelity wireframe:**

✓ **Low-Fidelity Wireframing**

Create a new Figma file:

Start by creating a new Figma file and setting the desired width and height for your wireframe.

Sketch the layout:

Use simple shapes and lines to sketch the basic layout of each page of the website. Focus on the overall structure and arrangement of elements, without worrying about visual details.

Label elements:

Add clear and concise labels to identify different elements on the wireframe, such as headings, buttons, navigation menus, and content areas.

Connect elements:

Use Figma's connecting tools to represent the navigation flow between different pages or sections of the website. This will help visualize the user journey and ensure a smooth navigation experience.

✓ **High-Fidelity Wireframing**

Refine the layout:

Based on the feedback from the low-fidelity wireframing stage, refine the layout and structure of your wireframes. Ensure that the layout is clear, consistent, and easy to navigate.

Introduce visual elements:

Start adding visual elements to your wireframes, such as colors, typography, and basic imagery. Keep the visual details minimal and focus on creating a consistent and visually appealing style.

Add interactivity:

Use Figma's prototyping features to add interactivity to your wireframes. Simulate user interactions, such as clicking on buttons, scrolling through content, or transitioning between pages.

Conduct usability testing:

Conduct usability testing with real users to identify any usability issues or areas for improvement in your high-fidelity wireframes. Observe how users interact with the wireframes and gather feedback on their experience.

Iterate and refine:

Based on the feedback from usability testing and further analysis, iterate on your high-fidelity wireframes and make necessary refinements. Ensure that the wireframes accurately represent the final product and provide a clear vision for the website's design and functionality.

- **Creating Mockups**

✓ **Import the high-fidelity wireframe:**

Use Figma's import feature to bring in the high-fidelity wireframe you created earlier. This will serve as the foundation for your mockups.

✓ **Enhance visual details:**

Start adding more detailed visual elements to your wireframes, such as high-quality images, icons, and illustrations. Pay attention to color palettes, typography, and overall visual consistency.

✓ **Refine the layout and spacing:**

With the added visual elements, ensure that the layout and spacing remain clear and balanced. Adjust the size, position, and padding of elements to create a visually appealing and cohesive design.

✓ **Introduce realistic interactions:**

Utilize Figma's prototyping features to add realistic interactions to your mockups. Simulate user actions, such as hover effects, transitions, and animations. This will enhance the user experience and make the mockups more engaging.

✓ **Add context and background:**

Place your mockups in realistic context by adding backgrounds, shadows, and other environmental elements. This will help users visualize how the mockups would look in real-world scenarios.

✓ **Seek feedback and iterate:**

Share your mockups with stakeholders, colleagues, or potential users to gather feedback and identify areas for improvement. Use the feedback to refine your mockups and make necessary adjustments.

- **Additional Tips:**

✓ **Use Figma's component library:**

Create reusable components for common elements, such as buttons, navigation bars, and input fields. This will streamline the mockup creation process and ensure consistency across different pages.

- ✓ **Explore Figma's design resources:**
  Utilize Figma's extensive library of design resources, including icons, illustrations, and stock photos. These resources can enhance the visual appeal and storytelling of your mockups.

- ✓ **Leverage Figma's presentation mode:**

Present your mockups in Figma's presentation mode to showcase your design in a full-screen, immersive experience. Use annotations and storytelling techniques to effectively communicate your design ideas and decisions.

Remember, mockups are not meant to be pixel-perfect representations of the final product. They serve as a visual communication tool to convey the overall design direction, layout, and functionality of the website or app. Focus on creating clear, engaging, and consistent mockups that accurately represent the user experience and align with your brand identity.

- **Prototyping Phase**

- ✓ **Import the mockup:**

Use Figma's import feature to bring in the mockup you created earlier. This will serve as the foundation for your prototype.

- ✓ **Identify interactive elements:**

Determine which elements in the mockup should be interactive, such as buttons, navigation menus, and input fields. These elements will allow users to simulate user interactions and experience the flow of the website or app.

- ✓ **Create connections:**

Use Figma's connecting tools to establish connections between interactive elements. Define how each element should respond to user actions, such as linking buttons to specific pages or triggering animations.

- ✓ **Set triggers and actions:**

For each connection, specify the trigger and action. The trigger determines what initiates the interaction, such as a click or hover, while the action defines the resulting behavior, such as navigating to a new page or displaying an overlay.

- ✓ **Add transitions and animations:**

Enhance the prototype's interactivity by adding transitions and animations. Simulate how elements move, fade, or change appearance when users interact with them, creating a more engaging and realistic user experience.

- ✓ **Test and refine:**

Preview your prototype in Figma's presentation mode or share it with others to test the interactions and user flow. Gather feedback, identify areas for improvement, and refine the prototype accordingly.

- ✓ **Link to external resources:**

If your prototype requires integration with external resources, such as APIs or databases, use Figma's code-based prototyping features to connect to these resources and simulate their behavior.

- **Additional Tips:**
- ✓ **Utilize Figma's auto-animation feature:**
  Leverage Figma's auto-animation feature to automatically generate animations based on common interaction patterns, such as button clicks and page transitions.
- ✓ **Explore Figma's plugin ecosystem:**
  Explore Figma's extensive collection of plugins to enhance your prototyping capabilities. Plugins can provide additional tools, effects, and features to streamline the prototyping workflow.
- ✓ **Create interactive walkthroughs:**
  Use Figma's prototyping features to create guided walkthroughs that showcase specific features or functionalities of the website or app. This can be particularly useful for onboarding new users or highlighting key aspects of the design.
- ✓ **Share and collaborate:**
  Share your prototype with team members, stakeholders, or potential users using Figma's collaboration features. Gather feedback, discuss design decisions, and work together to refine the prototype and achieve a shared vision for the product.

- **Usability Testing**

Usability Testing

Usability testing is a crucial step in the UX design process, allowing you to evaluate how well users can interact with your website or app. It helps identify usability issues, improve user experience, and ensure that the design meets user needs.

Key Steps of Usability Testing

- **Define testing goals:**

Determine the specific objectives of your usability testing, such as identifying specific usability issues, assessing user satisfaction, or evaluating the effectiveness of a particular feature.

- **Recruit participants:**

Select a representative sample of your target users to participate in the testing. Ensure that the participants reflect the diversity of your user base in terms of demographics, experience levels, and usage patterns.

- **Prepare testing tasks:**

Develop a set of tasks that users will perform during the testing session. These tasks should represent common actions or scenarios that users would encounter when using the website or app.

- **Conduct testing sessions:**

Moderate the usability testing sessions, guiding participants through the tasks and observing their interactions with the interface. Encourage participants to think aloud, verbalizing their thoughts and actions as they navigate the website or app.

- **Gather feedback:**

Collect feedback from participants through post-test interviews or surveys. Ask about their overall experience, identify areas of difficulty, and gather suggestions for improvement.

- ✓ **User Feedback**

User feedback is invaluable for identifying areas for improvement and ensuring that your designs are aligned with user needs. Gather feedback from various sources, including:

- **Usability testing:**
  Gather feedback directly from users during usability testing sessions.
- **User surveys:**
  Distribute online or in-person surveys to collect feedback from a wider audience.
- **User interviews:**
  Conduct one-on-one interviews to gain deeper insights into user perspectives and pain points.
- **Analytics data:**
  Analyze website or app usage data to identify patterns, track user behavior, and uncover areas for improvement.

Points to Remember

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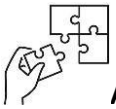
- Know prototype as an essentially simulated version of a product.
- Know that prototypes come in various forms.
- Advantages to test how the final product will look like before launching, that allows to make or adding any change to product.
- Through a created figma file project allows you to explore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

You are a UX designer tasked with working on a prototype design in Figma for a web design project for an online clothing store. The primary aim of this project is to create a visually appealing and user-friendly website to cater to the needs and preferences of young adults who have a keen interest in fashion. Your client, the owner of the clothing store, is looking to improve the online shopping experience, increase customer engagement, and boost sales. This project is essential for establishing a strong online presence in a competitive fashion market.

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)

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

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

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

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

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

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

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

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

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.

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 organized 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	• Figma
Equipment	• Computer
Materials/ Consumables	• Papers, Pens, Pencils

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