

UI Lab Viva questions with answers

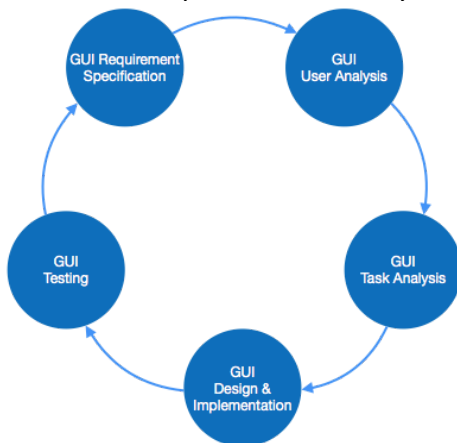
1. What is User Interface?

User interface is the front-end application view to which user interacts in order to use the software.

User can manipulate and control the software as well as hardware by means of user interface.

Today, user interface is found at almost every place where digital technology exists, right from computers, mobile phones, cars, music players, airplanes, ships etc.

2. What are the phase of UI life cycle?



GUI Requirement Gathering

- The designers may like to have list of all functional and non-functional requirements of GUI.
- This can be taken from user and their existing software solution.

User Analysis

- The designer studies who is going to use the software GUI.
- The target audience matters as the design details change according to the knowledge and competency level of the user.
- If user is technical savvy, advanced and complex GUI can be incorporated.
- For a novice user, more information is included on how-to of software.

Task Analysis

- Designers have to analyze what task is to be done by the software solution.
- Here in GUI, it does not matter how it will be done.
- Tasks can be represented in hierarchical manner taking one major task and dividing it further into smaller sub-tasks.
- Tasks provide goals for GUI presentation.
- Flow of information among sub-tasks determines the flow of GUI contents in the software.

GUI Design & implementation

- Designers after having information about requirements, tasks and user environment, design the GUI and implements into code and embed the GUI with working or dummy software in the background.
- It is then self-tested by the developers.

Testing

- GUI testing can be done in various ways.
- Organization can have in-house inspection, direct involvement of users and release of beta version are few of them.
- Testing may include usability, compatibility, user acceptance etc.

3. What are the Steps in A Common UI Design Process?

- a. Instead of Research on Google, do Research from Users
- b. Build User Persona
- c. Create User Stories/Scenario Map/Sitemap
- d. Start creating Wireframes and Interaction Prototypes
- e. Metrics Analysis

4. What is persona?

Personas are fictional characters created to represent the different user types that might use a site, brand, or product in a similar way.

- A user persona is a fictional representation of your ideal customer.
- A persona is generally based on user research and incorporates the needs, goals, and observed behavior patterns of your target audience.

5. What is a user flow?

A user flow is a visual representation, either written out or made digitally, of the many avenues that can be taken when using an app or website.

There are many different pathways a user can take when interacting with a product.

6. What is wireframe?

Wire framing in UX design refers to an illustration or diagram of a website, software, or app page that looks at:

- a. The allocation of space on that page
- b. The distribution of images and content
- c. How content is prioritized
- d. What functions are available
- e. What behavior is intended and accommodated.

7. What are different types of wireframes?

- **Low fidelity wireframe-** Low fidelity wireframes include the most basic content and visuals and are usually static (not interactive). They are often used to help map out the shell of the interface, its screens and basic information architecture.

- **Medium fidelity wireframe**-Medium to high fidelity wireframes are more complete representations of the end product than low fidelity wireframes.
- **High fidelity wireframe**-High fidelity wireframes are often built in the advanced stages of the design process to communicate design decisions to the development team prior to coding the final product.

8. What are the Principle of Consistency and Standards in User Interface Design?

Your Choice of Language- language should be simple, use simple words.

Apply UI Elements as They are Originally Defined

Consider Various Well-established Conventions When Deciding on Layout

Design for your User's Expectations

Create Consistent Visual Elements throughout Your Site

9. What are different UI Open Source Tools?

Pencil project

Wireframe.cc

invision

Weld

Figma

10. What are different Boolean operations offered in figma?

Boolean operations combine any set of shape layers through one of four formulas-

- **Union-** Union combines the selected shapes into a Boolean group.
- **Subtract-** Subtract is the opposite of Union.
Subtract removes the area of a shape or set of shapes from a base shape.
- **Intersect-** Intersect creates a Boolean group whose shape consists only of the overlapping parts of its sublayers.
- **Exclude-** Exclude is the opposite of Intersect. Exclude shows only the areas of its sublayers that do not overlap.

11. What is vector network in figma?

Complex objects can then be created within the same object and with the same properties much faster than they could be drawn using traditional vector path tools.

Vector networks are backwards-compatible with paths. Vector networks do not have a direction and can fork off in different directions without requiring a separate path object to be created.

12. What do you mean by User analysis?

User analysis is the process by which engineers, developers, and designers track how users engage and interact with their software, product, or application in an attempt to improve their product, bring more users in, improve user engagement with their product, and the general success of their application.

13. Why user analysis is important?

Because it helps to

- Understand how users engage with your product: Learn the features that are most popular, how and why the product is used the way it is, and what your users want from it
- Develop user profiles based on user actions and attributes: Establishing distinct personas will help you understand how different groups of users interact with your solution, which can help you design a more appealing product for each group
- Gather quantifiable data on your users—This allows you to identify, detect, and eventually predict trends and behavior by users

14. Why do you need a persona?

Whether you're developing a smartphone app or a mobile-responsive website, it's very important to understand who will be using the product.

Knowing your audience will help influence the features and design elements you choose, thus making your product more useful.

A persona clarifies who is in your target audience by answering the following questions:

- a. Who is my ideal customer?
- b. What are the current behavior patterns of my users?
- c. What are the needs and goals of my users?

Understanding the needs of your users is vital to developing a successful product.

Well-defined personas will enable you to efficiently identify and communicate user needs.

Personas will also help you describe the individuals who use your product, which is essential to your overall value proposition.

15. What is task analysis?

Task analysis is the systematic study of how users complete tasks to achieve their goals. This knowledge ensures products and services are designed to efficiently and appropriately support those goals.

16. What do you mean by object model?

An object model is a visual representation of a system's objects, actions, and associated attributes.

It is quite similar to UML class diagram.

It is a simplified object model and it substantially replaces the UML notation with plain-English narrative. Also, while the Class Diagram is highly structured, following the rules of UML, the Object Model is lighter-weight and more flexible.

17. What is storyboard?

Storyboarding is an important step to help outline features and emotional states of the user as narrated through their story.

18. What do you mean by mental model?

Mental Models are people's expectations of how something should work, based on their past experiences.

Mental models are built in a user's brain and are based on what they know from past interactions with websites, mobile phones, and other interactive products. UX designers can use mental models to develop designs that will make sense to users. A mental model describes the thoughts, feelings, and discrete actions associated with various mental states.

19. What do you mean by prototype?

Prototypes are a close replica of what the end result of a product will look like, usually without code. They incorporate most of the final UI design and interaction that the finished product will have.

20. What is color gradient?

A color gradient (sometimes called a color ramp or color progression) specifies a range of position-dependent colors, usually used to fill a region.

For example, many window managers allow the screen background to be specified as a gradient.

The colors produced by a gradient vary continuously with position, producing smooth color transitions

21. What are different types of gradients?

There are four types of Gradients: Linear, Radial, Angular and Diamond

22. What do you mean by components in figma?

Components are UI elements that you can reuse across your designs.

The main component defines the properties of the element.

The instance is a copy of the component you can reuse in your designs.

A header, footer or even a button can be a component.

23. What do you mean by style in figma?

The Styles feature allows a user to define a set of properties which can be reused and synced across your designs.

You can use Styles to define Colors, Typography, Effects, and Layout Grids.

Your Color Styles can then be applied to Fills, Strokes, and Text in your designs.

If you update a Style's properties, such as changing a Color Style from Yellow to Blue, the property will instantly update across all objects using that Style.

24. What are the different styles that you can create in figma?

Figma allows you to create Text style, Color style, Effect style