

Experiment No. 2

Title: Selection of Wireframing/prototype tool

Batch: B-3**Roll No.: 16010422234****Experiment No.: 2****Aim:** To write case study on selection of Wireframing/prototype tool**Resources needed:** Web Resources**Theory:**

Wireframing, in the context of user experience design, is the act of creating user interface wireframes. Originally, the term "wireframe" meant a visual representation of three-dimensional objects, like those used in product design and development. Now it is also used to describe 3D modeling in computer animation and in the design and development of 2D web pages and mobile apps.

In web design, a wireframe or wireframe diagram is a grey-scale visual representation of the structure and functionality of a single web page or a mobile app screen. Wireframes are used early in the development process to establish the basic structure of a page before visual design and content is added, and can be created using paper, straight into HTML/CSS or using software apps.

Wireframing sets expectations about how features will be implemented by showing how features will work, where they will be located and how much benefit they'll provide. A feature may be pulled out because it doesn't fit into your site's goals. Wireframing provides an objective look at link names, paths to conversion, ease of use, navigation, and the placement of features. Instead of merging the full functionality, layout and creative elements into a single step, wireframes guarantee that these considerations are taken on separately. This allows stakeholders to provide feedback much sooner in the process.

Wireframes often end up evolving into the requirements for a system. Wireframes can be created using a variety of software applications, for example, Visio, Excel, Word, Illustrator, Photoshop and PowerPoint.

Wireframes should include all the important elements of a Web page. These include: Navigation, Company logo, Content area sections, Search function, User log in areas if appropriate. This is another type of wireframe that is used in building web applications. It shows not only how each page is structured but information about each widget, button, field, each piece of content, and what page is rendered by an action. It provides a map of the entire page in the Web site, its function and features. Even the message that may be rendered by behaviour can be included on this type of wireframe.

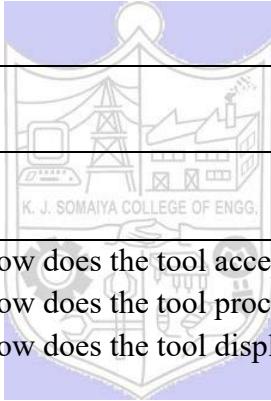
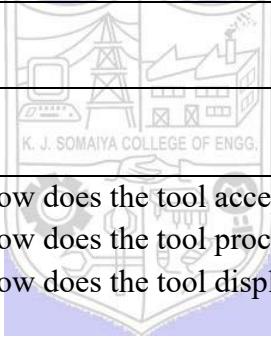
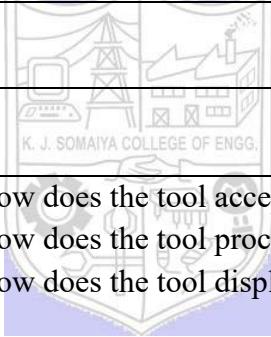
Procedure:

Discuss one Wireframing/Prototyping tool selected and elaborate on the same.

1(a). Search for Tools available for any one of categories of UI design.

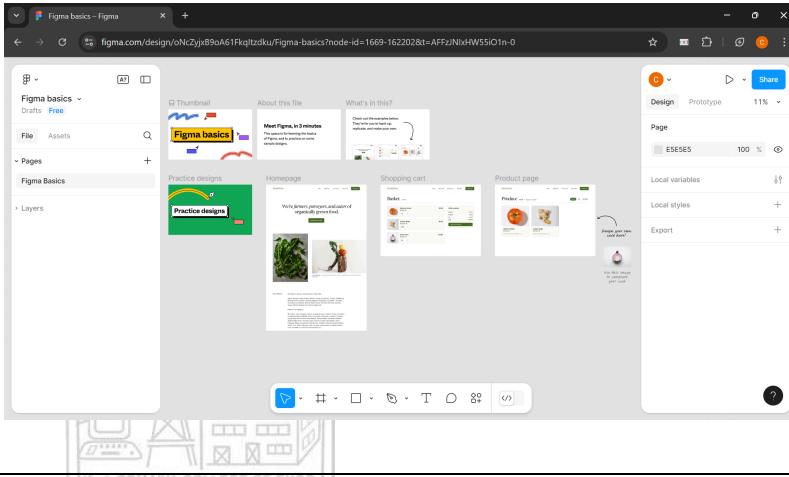
- a. Wireframing
- b. Mock up
- c. Prototyping
- d. Proof of Concept

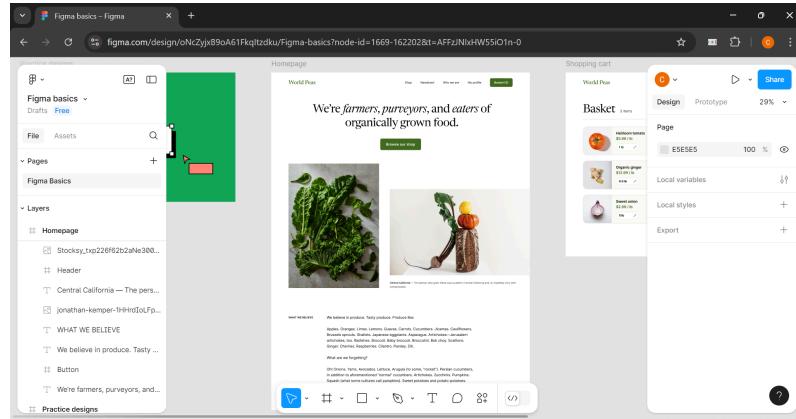
1(b). Explain the tool searched for each technique in the format given below.

Type of Tool	
Name: Of the Tool (Include Company Name, Website etc.)	
License/ Open Source	
Explanation of Tool	
Procedure	<ol style="list-style-type: none"> 1. How does the tool accept the input? 2. How does the tool process the data? 3. How does the tool display the output/result?
Conclusion	Whether the tool will be selected for laboratory activities?

Results:

Type of Tool	Wireframing Tool
Name: Of the Tool (Include Company Name, Website etc.)	Figma (by Figma, Inc.) https://www.figma.com/
License/ Open Source	Freemium model (Free for individuals with paid options for teams and enterprises)

Explanation of Tool	<p>Figma is a cloud-based design tool that enables users to collaborate in real-time on the design and prototyping of interfaces for web and mobile applications. It combines powerful design features with prototyping capabilities, allowing designers to create, test, and share designs all in one platform. Figma's real-time collaboration is a standout feature, making it ideal for teams working together on UI/UX projects.</p> 
Procedure	<p>1. How does the tool accept the input?</p> <p>Ans: Figma allows users to start a new design by creating a frame (which can represent a screen or webpage) or importing existing assets. Users can drag and drop elements from the built-in library or import external assets like images, icons, and fonts. Designers can also use vector tools to create custom shapes and components directly in Figma. The tool supports keyboard shortcuts for quick actions and the use of templates for standard layouts.</p>



2. How does the tool process the data?

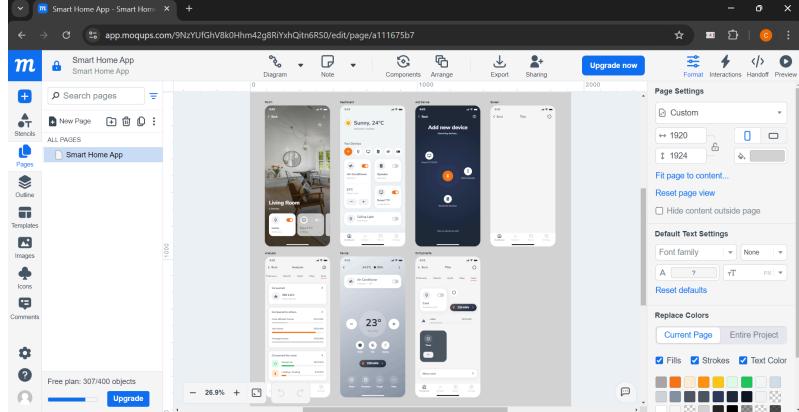
Ans: Once the design elements are in place, Figma processes the data by allowing users to manipulate the design through layers, groups, and components. Figma supports vector editing, enabling precise control over shapes, lines, and paths. The tool's components feature allows for the reuse of elements across multiple frames, ensuring consistency throughout the design. The real-time collaboration feature processes input from multiple users simultaneously, syncing changes in real-time across all connected devices.

3. How does the tool display the output/result?

Ans: Figma displays the output in the design interface itself, where users can view and edit their work in real-time. It also offers a prototype mode, where designers can link frames together to simulate user interactions, such as clicks, swipes, and transitions. The prototype can be shared via a URL, allowing stakeholders to interact with the design in a browser as if it were a live website or app. Figma provides options to export designs in various formats, such as PNG, JPG, SVG, and PDF, for use in other tools or final implementation.

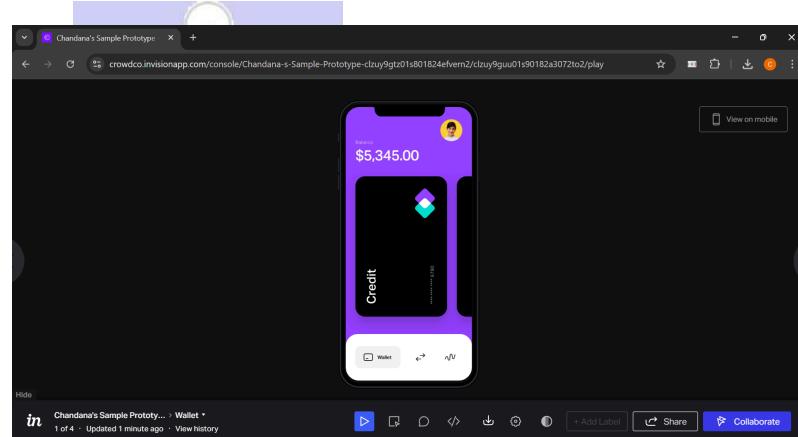
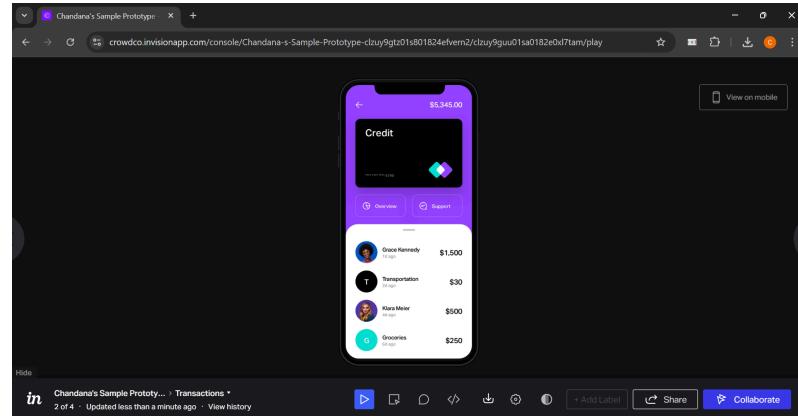
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	<p>World Peas</p> <p>Shop Newstand Who we are My profile Basket (3)</p> <p>Basket 3 items</p> <table border="1"> <tr> <td></td> <td>Heirloom tomato \$5.99 / lb 1 lb <input type="button" value="edit"/></td> <td>\$5.99</td> </tr> <tr> <td></td> <td>Organic ginger \$12.99 / lb 0.5 lb <input type="button" value="edit"/></td> <td>\$6.50</td> </tr> <tr> <td></td> <td>Sweet onion \$2.99 / lb 5 lb <input type="button" value="edit"/></td> <td>\$14.95</td> </tr> </table> <p>Order summary</p> <table border="1"> <tr> <td>Subtotal</td> <td>\$27.44</td> </tr> <tr> <td>Shipping</td> <td>\$3.99</td> </tr> <tr> <td>Tax</td> <td>\$2.00</td> </tr> <tr> <td>Total</td> <td>\$33.43</td> </tr> </table> <p>Continue to payment</p>		Heirloom tomato \$5.99 / lb 1 lb <input type="button" value="edit"/>	\$5.99		Organic ginger \$12.99 / lb 0.5 lb <input type="button" value="edit"/>	\$6.50		Sweet onion \$2.99 / lb 5 lb <input type="button" value="edit"/>	\$14.95	Subtotal	\$27.44	Shipping	\$3.99	Tax	\$2.00	Total	\$33.43
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Conclusion	<p>Whether the tool will be selected for laboratory activities?</p> <p>Ans: Figma is a versatile tool that excels in both wireframing and prototyping, making it a strong candidate for use in laboratory settings where design collaboration and real-time feedback are critical. Its integration of wireframing, vector</p>																	

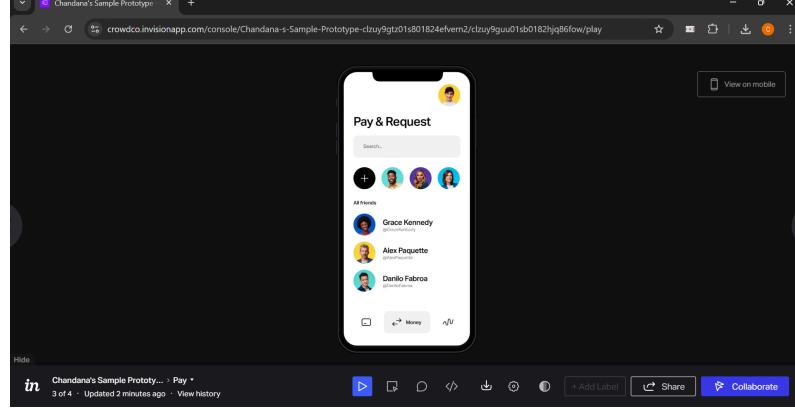
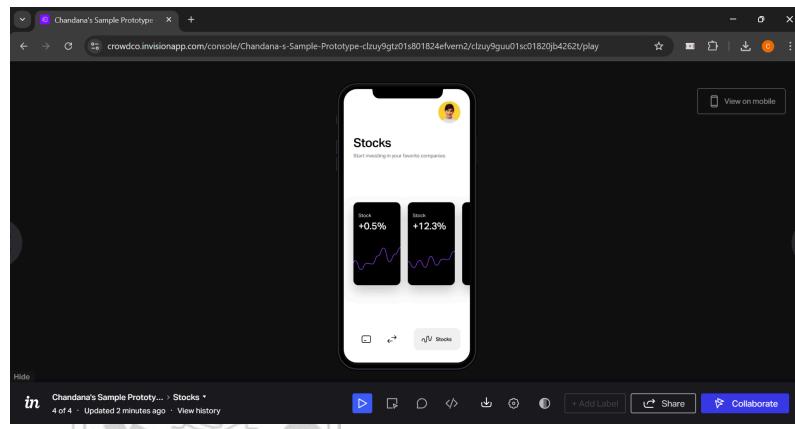
	design, and prototyping within a single platform simplifies the design process and enhances productivity. Given its features and ease of use, Figma is highly recommended for laboratory activities focused on user interface design and prototyping.
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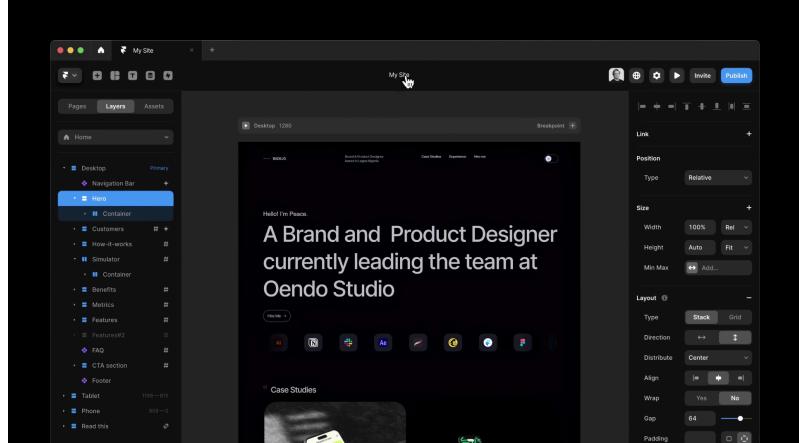
Type of Tool	Mockup Tool
Name: Of the Tool (Include Company Name, Website etc.)	Moqups (by Evercoder Software) https://moqups.com/
License/ Open Source	Freemium model (Free version with limited features, with paid options for advanced features)
Explanation of Tool	Moqups is an online tool designed for creating wireframes, mockups, and diagrams. It offers a user-friendly interface with drag-and-drop functionality, making it easy to quickly create and modify designs. The tool provides various templates and pre-built elements that help in constructing mockups efficiently. Moqups is web-based, meaning it can be accessed from any device with an internet connection.
Procedure	<p>1. How does the tool accept the input?</p> <p>Ans: Moqups allows users to create new mockups by choosing from templates or starting from scratch. Elements can be added to the mockup by dragging them from the sidebar into the workspace. Users can also upload images, icons, and other assets to be used in the mockup.</p> 

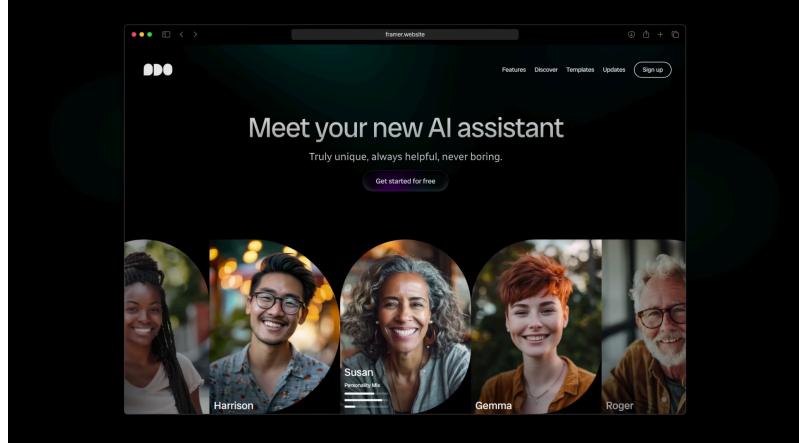
	<p>2. How does the tool process the data?</p> <p>Ans: Once elements are placed in the workspace, Moqups processes the data by allowing users to customize properties such as size, color, and position. Users can group elements, create layers, and manage object properties through a simple interface. The tool also supports real-time collaboration, enabling multiple users to work on the same project simultaneously.</p> <p>3. How does the tool display the output/result?</p> <p>Ans: Moqups displays the mockup directly in the browser, where it can be edited and reviewed. The final mockup can be exported in various formats, such as PNG, PDF, or SVG, for use in presentations or further development.</p>
Conclusion	<p>Whether the tool will be selected for laboratory activities?</p> <p>Ans: Moqups is an intuitive tool for creating mockups quickly and efficiently. Its ease of use, combined with its range of templates and elements, makes it ideal for laboratory activities where the focus is on generating visual representations of UI designs. Moqups is recommended for use in laboratory activities that require the creation of mockups.</p>

Type of Tool	Prototyping Tool
Name: Of the Tool (Include Company Name, Website etc.)	InVision (by InVisionApp Inc.) https://www.invisionapp.com/
License/ Open Source	Freemium model (Free for individuals with paid options for teams and enterprises)
Explanation of Tool	InVision is a leading prototyping tool that allows designers to create interactive and animated prototypes for web and mobile applications. The tool emphasizes collaboration, enabling designers to gather feedback from stakeholders directly within the platform. InVision also integrates well with other design tools like Sketch and Adobe XD, allowing for a seamless workflow.

Procedure	<p>1. How does the tool accept the input?</p> <p>Ans: InVision allows users to import designs from tools like Sketch, Photoshop, and Figma, or start new projects directly within the platform. Designers can then add hotspots to link different screens together, creating a flow that simulates user interactions.</p> <p>2. How does the tool process the data?</p> <p>Ans: InVision processes the designs by enabling designers to add animations, transitions, and other interactive elements. The platform supports the creation of complex interactions, allowing for a high-fidelity simulation of the final product. Collaboration features allow team members to comment directly on the prototypes, ensuring feedback is collected and managed efficiently.</p>  
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Conclusion	<p>3. How does the tool display the output/result?</p> <p>Ans: The interactive prototypes can be viewed directly within InVision, where stakeholders can interact with them as if they were navigating a live app or website. Prototypes can also be shared via a link, making it easy to gather feedback from remote teams or clients. InVision also allows exporting design assets for use in development.</p> <p>Whether the tool will be selected for laboratory activities?</p> <p>Ans: InVision is an excellent tool for creating detailed and interactive prototypes, making it a great choice for projects where demonstrating user interaction is crucial. Its collaboration features further enhance its utility in laboratory settings where iterative feedback is important. InVision is recommended for laboratory activities that involve creating prototypes with interactive elements.</p>

Type of Tool	Proof of Concept Tool
Name: Of the Tool (Include Company Name, Website etc.)	Framer (by Framer B.V.) https://www.framer.com/
License/ Open Source	Freemium model (Free plan with advanced features available in paid plans)
Explanation of Tool	Framer is a powerful tool that focuses on creating interactive and animated prototypes, making it ideal for proof of concept (PoC) work. Framer allows designers to create complex interactions using code, offering a high degree of flexibility for simulating advanced features and animations. It is particularly useful for mobile app designs and dynamic web applications.
Procedure	<p>1. How does the tool accept the input?</p> <p>Ans: Framer allows users to start projects by importing designs from other tools or by creating new elements within Framer using its design and code interface. Designers can use Framer's in-built tools to draw, animate, and add interactive elements.</p>  <p>2. How does the tool process the data?</p> <p>Ans: Framer processes the input by allowing users to add code-based interactions and animations, providing a high level of control over how elements behave. This makes it possible to simulate complex user experiences that go beyond</p>

	<p>basic prototyping. Framer also supports real-time collaboration, enabling multiple users to work together on the PoC.</p> <p>3. How does the tool display the output/result?</p> <p>Ans: The result is displayed as a fully interactive prototype that can be tested in a web browser or on a mobile device. Framer allows sharing of prototypes via a URL, making it easy to present the PoC to stakeholders. The tool also offers options for exporting code snippets, which can be used in development.</p> 
Conclusion	<p>Whether the tool will be selected for laboratory activities?</p> <p>Ans: Framer is a highly flexible tool that excels in creating detailed proofs of concept, especially for projects that require advanced interactions and animations. Its ability to integrate design with code makes it particularly valuable for laboratory activities focused on testing innovative ideas and user experiences. Framer is recommended for laboratory activities where the creation of proof of concepts is required.</p>

Outcomes: Apply principles of information organization and navigation along with data handling in web interface design

Conclusion: (Conclusion to be based on the objectives and outcomes achieved)

Given the options and the features each tool offers, Figma has been chosen as the primary tool for laboratory activities due to its versatility in both wireframing and prototyping, along with its real-time collaboration capabilities. This makes it an ideal choice for projects requiring efficient team collaboration, iterative feedback, and integration of both design and prototyping tasks within a single platform. Figma's freemium model ensures that students can access the necessary features without cost barriers, while more advanced features are available for future expansion.

Grade: AA / AB / BB / BC / CC / CD /DD

Signature of faculty in-charge with date

References:

1. Wilbert O. Galitz, "The Essential Guide to User Interface Design - An Introduction to GUI Design Principles and Techniques", Wiley Computer Publishing, Second Edition, 2002
 2. Bill Scott, Theresa Neil, "Designing Web Interfaces Principles & Patterns for Rich Interaction", O'rielly Media, First Edition, 2009
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