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C E R T I F I C A T E

This is to certify that Mr. / Miss. Hritik Kishor Parate of MCA Semester - II with Roll No MCA2022035 has completed all practicals of UI/UX under Asst. Prof. Khyati Manvar supervision in this college during the year 2022-2023.

CO	Attendance	Performance during Lab session	Innovation in problem solving techniques	Mock Viva during Lab session	Journal
CO1					
CO2					
CO3					
CO4					

Subject In-Charge

Director

**MCAL25 User Interface Lab
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Subject In-Charge

Director

Practical 1

Aim: Introduction to UI life cycle and UI tools.

OBJECTIVE: Understand the importance of User Interface Design (UI) Process.

THEORY:

Introduction:

- A user interface, also called a "UI" or simply an "interface," is the means in which a person controls a software application or hardware device.
- A user interface is the point of human-computer interaction and communication on a device, webpage, or app.
- This can include display screens, keyboards, a mouse, and the appearance of a desktop. User interfaces enable users to effectively control the computer or device they are interacting with.
- User interface is important to meet user expectations and support effective functionality.
- A successful user interface should be intuitive, efficient, and user friendly.
- Nearly all software programs have a graphical user interface, or GUI. This means the program includes graphical controls, which the user can select using a mouse or keyboard.
- A typical GUI of a software program includes a menu bar, toolbar, windows, buttons, and other controls.
- User Interface Design is the craft and process of designing what a user interacts with when communicating with software.

Types of UI are:

Form-based user interface:

A form-based user interface (UI) is a type of graphical interface commonly used for data entry and information collection. It consists of input fields, checkboxes, dropdown lists, and other form elements that allow users to input data in a structured manner. Labels and validation mechanisms help guide users and ensure the accuracy of the entered information. Submit buttons initiate the action associated with the form, such as saving or processing the data. Form-based UIs improve data consistency, user guidance, and accessibility while preventing errors through validation.

Graphical user interface:

A graphical user interface (GUI) is a visual interface that allows users to interact with a computer or software system using graphical elements such as icons, buttons, menus, and windows. It provides a more intuitive and user-friendly way to interact with the system compared to command-line interfaces. GUIs enable users to perform tasks by clicking on graphical elements and manipulating objects using a mouse or touch input. They provide visual feedback, such as displaying text, images, and multimedia content, to enhance the user

experience. GUIs are widely used in applications, operating systems, and websites to facilitate user interaction and improve usability.

Menu-driven user interface:

A menu-driven user interface is a type of graphical user interface (GUI) where users navigate through options presented in menus to interact with a computer system or software application. It typically involves a hierarchical structure of menus and submenus that allow users to access different functionalities or perform specific actions. Users can navigate the menus using input devices like a mouse, keyboard, or touch input. Each menu item represents a specific command or function that users can select to trigger an action or access a particular feature. Menu-driven interfaces provide a structured and organized way for users to interact with the system and simplify the process of accessing desired functionalities without the need for remembering specific commands or syntax.

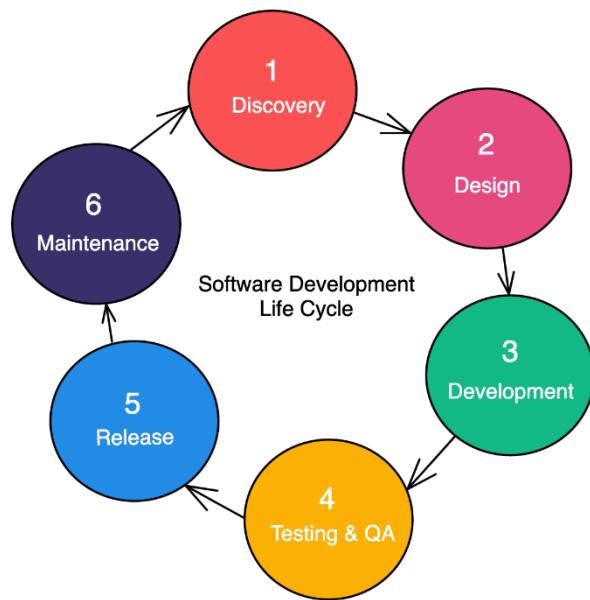
Touch user interface:

A touch user interface (UI) is a type of user interface that allows users to interact with a computer or electronic device by directly touching the screen or touchpad. Instead of using traditional input devices like a mouse or keyboard, touch UIs enable users to perform actions and input commands through gestures, swipes, and taps on the touch-sensitive surface. Touch UIs are commonly found on smartphones, tablets, touchscreens, and other handheld devices. They provide a more intuitive and tactile way for users to navigate through menus, scroll, zoom, select options, and interact with on-screen elements. Touch UIs have become increasingly popular due to their simplicity, ease of use, and natural interaction style.

Voice user interface:

A voice user interface (VUI) is a type of user interface that allows users to interact with a computer or electronic device using spoken commands or voice inputs. Instead of relying on physical input devices like keyboards or touchscreens, VUIs leverage speech recognition technology to interpret and understand user voice commands. Users can give verbal instructions, ask questions, or initiate actions, and the system responds accordingly. VUIs are commonly found in voice assistants, smart speakers, virtual assistants, and phone systems. They offer hands-free and natural interaction, enabling users to access information, control devices, perform tasks, and receive spoken responses. VUIs have gained popularity due to their convenience, accessibility, and the ability to provide a more conversational and personalized user experience.

UI LIFE CYCLE:



1. Research:

Research involves gathering information and insights about the target users, their needs, preferences, and the context in which the UI will be used. This phase includes activities such as user research, market analysis, and competitive analysis. The goal is to understand the users' goals, motivations, and behaviors to inform the design decisions and ensure the UI meets their expectations. Research helps identify user requirements, pain points, and opportunities for improvement, ultimately guiding the UI design process.

2. Analysis:

Analysis involves examining and interpreting the gathered research data to extract meaningful insights. It includes synthesizing user research findings, identifying patterns, and extracting actionable information. The analysis phase helps UX/UI designers understand user behavior, preferences, and the context of use. It also helps uncover design challenges, potential usability issues, and areas for improvement. Through analysis, designers gain valuable insights that inform the design strategy and decision-making process, ensuring the UI meets user needs and expectations effectively.

3. Design and branding:

During the design and branding phase, User Interface design is created that addresses the specific needs identified in the research & analysis phase and creates, revise or leverage the

applications brand. During the design phase UI developers can work closely with the UX team to define the User interface (Wireframes, Visual design). A User Experience team may think out of the box while creating wireframes and visual design, but may not be aware of challenges, possibilities and limitations. Involving UI developers in this phase may ease the process, as UI developers understand the technologies and possibilities. This will reduce the last minute efforts from the UI developer's side and additionally both the UI and UX team, as well as client will have a clear expectations set.

4. Prototype Development:

Prototype development involves creating a working model of the user interface design to test and validate its concepts, functionality, and user interactions. It helps gather feedback and make necessary improvements before moving into the final development phase. Designers use various tools and software to create prototypes, and the fidelity of the prototype can vary from low-fidelity sketches to high-fidelity interactive simulations.

5. Production:

The production of a user interface (UI) involves the development and implementation of the finalized design. UI designers collaborate with developers to translate the design into functional code, including front-end implementation and back-end integration if needed. The process includes coding UI elements, styling, animations, and connecting to back-end systems or APIs. The goal is to bring the UI design to life and ensure its functionality and usability in the final product.

UI TOOLS:

1. MockFlow:

MockFlow is a web-based design and wireframing tool that allows designers to create interactive wireframes, UI prototypes, and visual designs. It offers a comprehensive set of features to streamline the UI design process. With MockFlow, users can create wireframes with drag-and-drop elements, customize them with design tools, and collaborate with team members in real-time. It also supports interactive prototyping, allowing designers to add clickable links and simulate user interactions. MockFlow provides a library of UI components and templates, making it easier to create professional-looking designs. Additionally, it offers features for generating specifications, exporting designs, and conducting user testing. MockFlow is suitable for both individual designers and collaborative design teams, providing a versatile platform for UI design and collaboration.

2. Balsamiq:

Balsamiq is a popular wireframing and prototyping tool used for creating low-fidelity UI designs. It offers a simple and intuitive interface that mimics hand-drawn sketches, allowing designers to quickly and easily convey their ideas. Balsamiq provides a library of pre-built UI elements and icons, making it easy to create wireframes and prototypes without the need for extensive design skills. It emphasizes fast and iterative design, enabling designers to focus on the layout and functionality rather than visual details. The collaborative features of Balsamiq facilitate team collaboration and feedback sharing. Balsamiq's lightweight approach makes it ideal for initial design exploration, user testing, and rapid prototyping. It is widely used by

UX/UI designers, product managers, and development teams to quickly visualize and communicate interface concepts.

3. Axure:

Axure RP is a powerful prototyping and wireframing tool used for creating interactive and high-fidelity UI prototypes. It offers a comprehensive set of features to design complex and dynamic user interfaces. With Axure RP, designers can create interactive prototypes with advanced interactions, conditional logic, and dynamic content. It supports collaboration and version control, enabling team members to work together seamlessly. Axure RP allows for the creation of design systems and reusable components, ensuring consistency across the UI. It offers advanced features like adaptive views, responsive design capabilities, and comprehensive documentation generation. Axure RP is commonly used by UX/UI designers, product managers, and developers for creating highly interactive and functional prototypes for user testing, stakeholder feedback, and development handoff.

4. Adobe XD:

Adobe XD is a powerful design and prototyping tool used for creating interactive and visually stunning user interfaces. It offers a wide range of features to streamline the UI/UX design process. With Adobe XD, designers can create wireframes, high-fidelity designs, and interactive prototypes all in one tool. It provides an intuitive and user-friendly interface, making it accessible for designers of all skill levels. Adobe XD supports collaboration, allowing team members to work together in real-time and share design assets seamlessly. It also integrates well with other Adobe Creative Cloud applications, enabling a smooth workflow for designers. Additional features include responsive design capabilities, asset management, and the ability to create design systems for consistent UI elements. Adobe XD is widely used in the industry for creating stunning and interactive user interfaces.

5. Sketch:

Sketch is a popular vector-based design tool used for creating user interfaces and digital designs. It offers a wide range of features specifically tailored for UI/UX designers. With Sketch, designers can create pixel-perfect designs, wireframes, and prototypes for websites and mobile applications. It provides an intuitive and flexible interface, making it easy to create and edit designs with precision. Sketch offers a vast library of plugins and integrations that enhance productivity and extend functionality. It supports collaborative workflows, allowing team members to work together and share design assets efficiently. Sketch also enables designers to create design systems and reusable components for consistent UI elements. Its export features facilitate seamless handoff to developers for implementation. Sketch is widely adopted in the industry and is a preferred tool for many UI/UX designers.

CONCLUSION: We successfully learnt about UI life cycle and UI Tools.

Practical 2

Aim: Requirement Gathering for Live Court System

THEORY:

Live Court is one of the services that falls under the eGovernment initiative. It is offered by the Ministry for Justice, Culture and Local Government so that more people will benefit from the use of the Live Court System Website. This service brings together a collection of judgements given by the Courts of Justice of Rajasthan. The researcher, in this collection, will find judgements of a certain interest and importance delivered by the Courts of Justice of Rajasthan.

OBJECTIVE :

- To implement an Electronic Court Case Management System (eCCMS) for case registration which are related to courts, and creation, modification and updating through user interface.
- The software will allow information to be entered by users, control information in the system and tracking of current case status to enhance public access.
- The system “Event” and “Scheduling” is to determine new case arrivals, session appointments, case deadline, reservation of courtroom and the judge who will head the case.
- To develop friendly user interfaces combined with intuitive layouts.
- To create a database to store, manage and backup case records.
- To create an administrator page that will show statistical analysis.

This service is a very useful electronic research tool, thought to satisfy the requirements of Judiciaries, Lawyers, Notaries, Legal Procurators, Courts' Personnel, Law Students, Journalists and last but not least the Public in General. The service is free of charge, has unlimited use and presents no fees whatsoever to download copies of the judgements full text documents.

Live Court offers following services:

- Client can get case information through case number.
- Next, Previous date of case hearing.

- Progress of case.
- Pending cases information.
- Opposition party information.

Apart from final judgements, the Live Court system displays also partial judgements. The types of judgements can be distinguished either:

- (a) from the Details screen; or,
- (b) from the Judgement document itself. At the end of each judgement document, there will be the judgement type (i.e. final judgement or partial judgement) printed. Please note that whilst all partial judgements will be visible, the feature which distinguishes them from the final judgements.

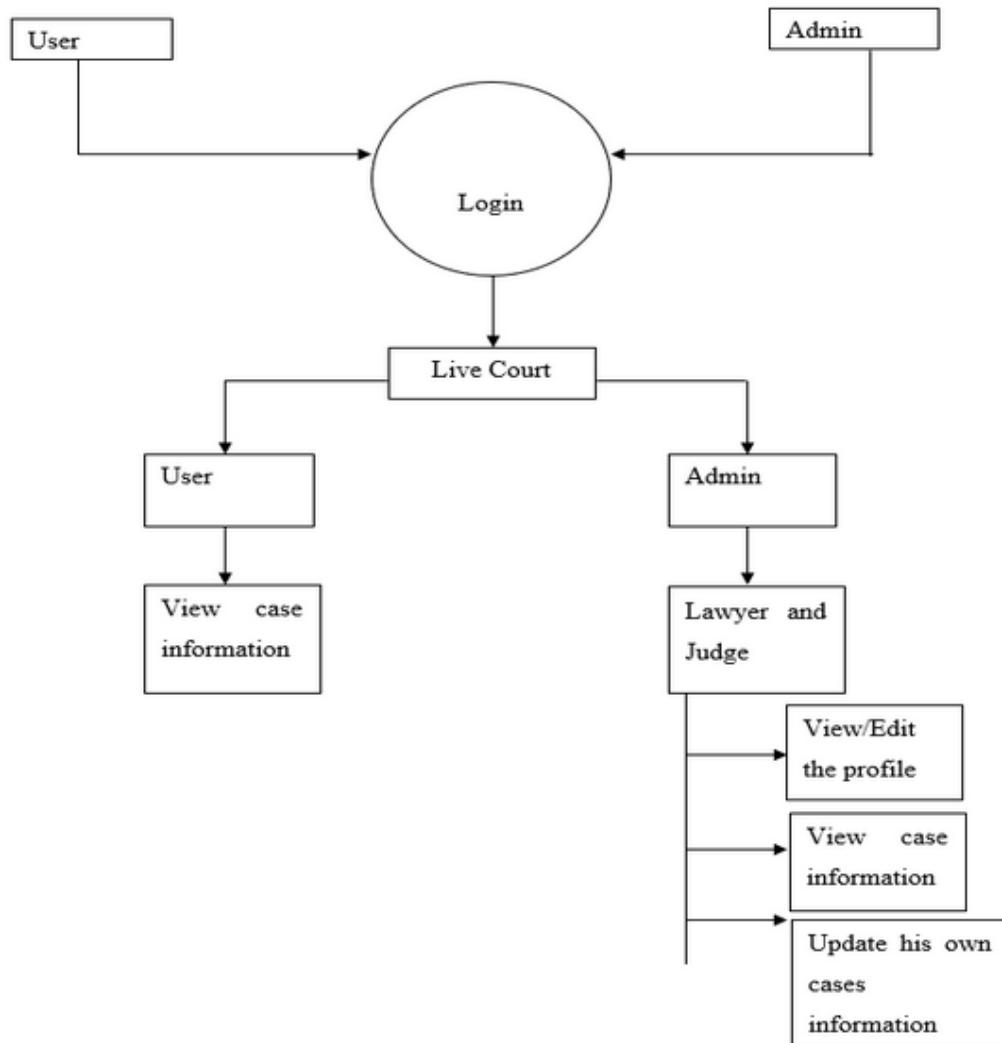
PURPOSE:

To study the influence of the Electronic Court Management System (eCCMS) on implementation and effectiveness of court service delivery in the Law Court Complex, Judicial Service of India.

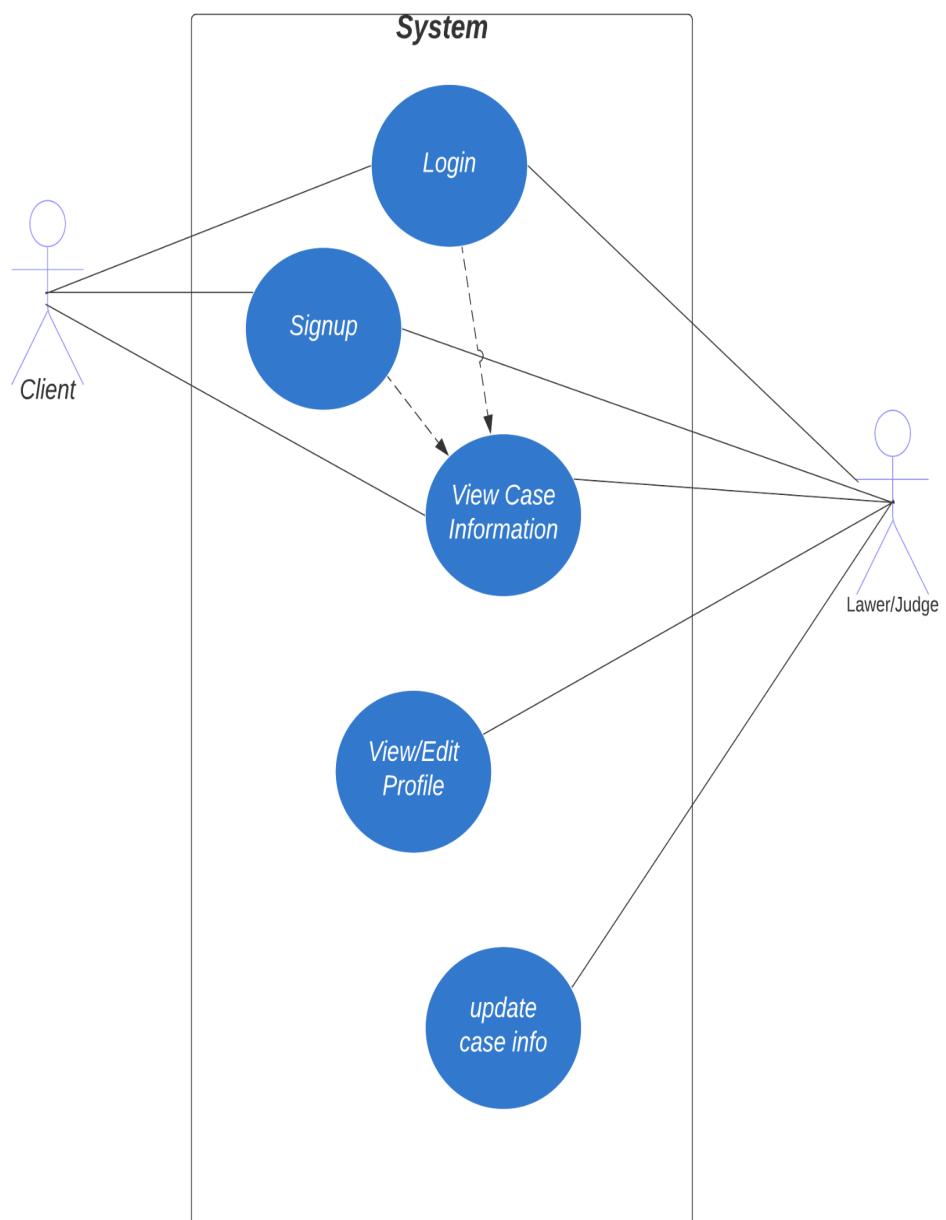
Practical 3

Aim: Analysis

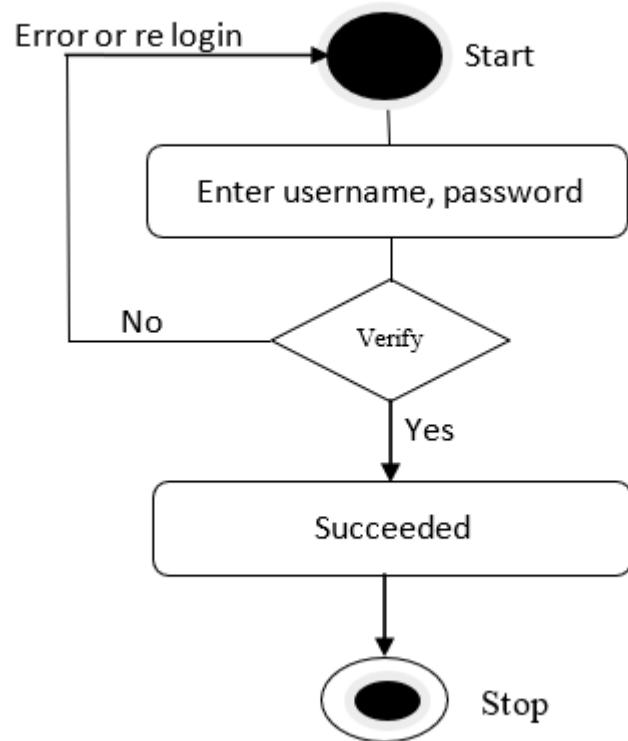
FLOW CHART



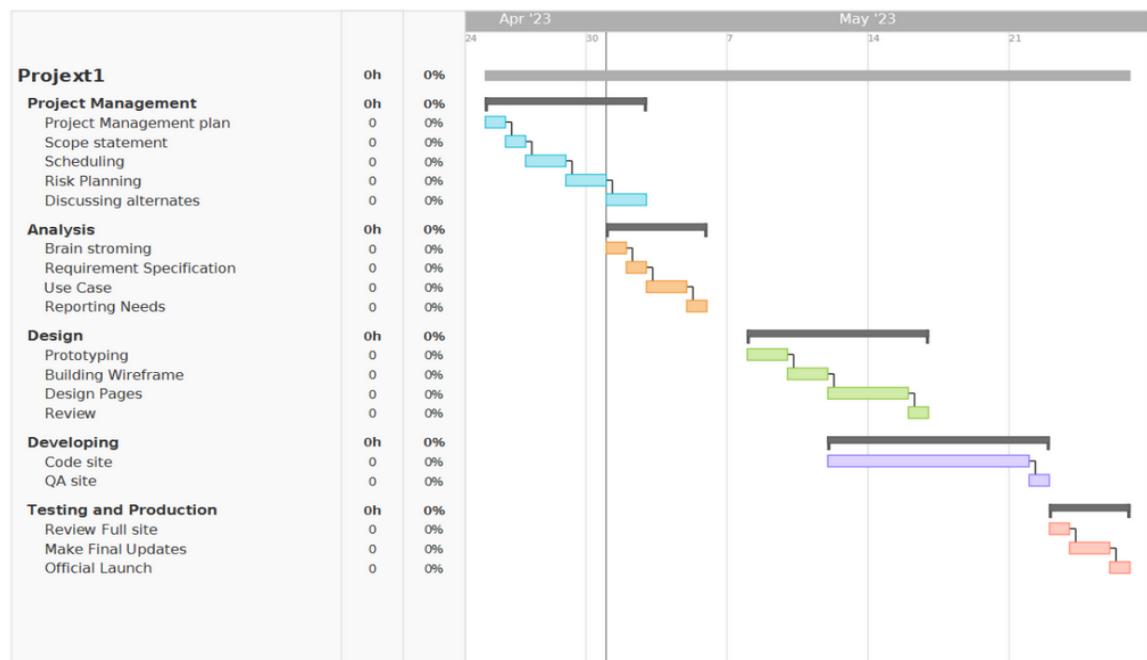
USE CASE DIAGRAM



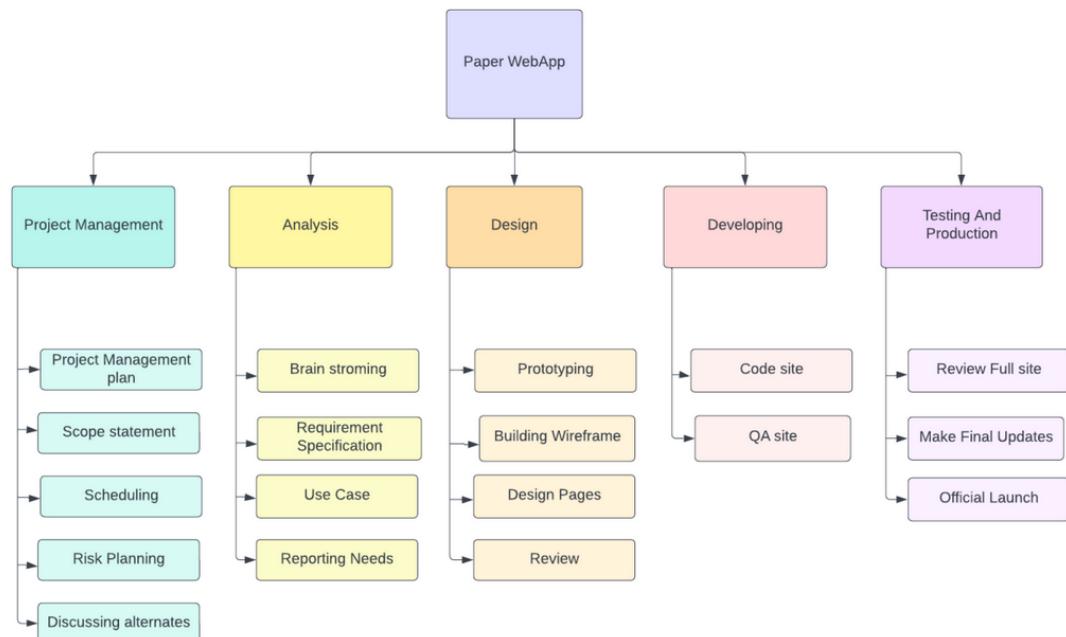
ACTIVITY DIAGRAM



GANTT CHART



WORK BREAKDOWN STRUCTURE



Practical 4

Aim – To create User Persona and Scenario/Storyboarding.

Write a scenario that involves all three of the tasks identified for the chosen project.

- a) Explain the Scenario
- b) Draw a mental model
- c) User Persona

DESCRIPTION:

Scenario in UI

What is a user scenario?

A user scenario is a narrative representation of a typical circumstance or exchange that a user might have when consuming a system, service, or product. It is an invention that explains the user's intentions, drives, and movements in a certain situation. User scenarios can inform the design and development process by revealing important information about how consumers interact with a product. They frequently contain information on the user's background, needs, and the procedures they take to accomplish their objectives. Design professionals may better understand people, pinpoint their problems, and create experiences that better meet their goals by developing user scenarios.

Why are user scenarios important?

- Consumer-Centric Design: User scenarios help in the adoption of a user-centric strategy for product development by designers and developers. They may effectively develop products that satisfy consumers' demands by understanding the aims, motivations, and behaviours of users.
- Empathy and Understanding: By creating user scenarios, designers may understand consumers' experiences, complaints, and desires. Making relevant and interesting user experiences is made simpler as a result to this insight.
- Handling Design Decisions: User scenarios offer direction for choosing designs. They help in putting users' preferences and goals first when selecting features, functionality, and interactions.
- Working together and communicating: User scenarios serve as a communication tool for stakeholders, designers, and developers. They facilitate conversations and harmonies' how everyone understands the target audience, their requirements, and the ideal user experience.

- Testing and Validation: User testing and validation are based on user scenarios. They can be used to develop test cases that are accurate representations of how consumers would interact with the product. Testing against user scenarios enables the detection of usability problems and the verification of design choices.

How to create user scenarios?

- Create User Personas: Create artificial representations of your target users known as user personas. Think about their ages, drives, aspirations, and problems. You can utilise user personas to design scenarios that take into thought the requirements and preferences of your target user groups.
- Define User Goals: Find out what people are trying to accomplish when using your product or service. They can have things they need to do, issues they want to fix, or experiences they want to have.
- Establish Context and Setting: Describe the environment in which the user scenario occurs. Take into account elements like the user's environment, the tools or devices they use, and any restrictions or limitations they might experience.
- Explain the order of events: Make a detailed account of the user's steps taken to achieve their objectives. Describe the starting background, the user's interactions, and the decisions they made before ending with the intended result or resolution.
- Include User Emotional States and Reactions: Throughout the scenario, include the user's emotional states, responses, and perceptions. You gain depth and a better understanding of the user's experience and any potential pain points as a result.
- Use User Scenarios as Design Guides: Once you have user scenarios, you can use them as a guide for all stages of design. They can act as a guide for making decisions about features, interactions, and the entire user experience. To make sure that the scenarios are in line with user requirements, keep referring back to them.

Sketch in UI

Making rough visual sketches or representations of user interfaces is referred to as "sketching" in user interface design. A user interface's layout, structure, and content can be readily explored and discussed during this early stage of the design process. Sketching allows for rapid exploration and iteration. Since sketches are quick and rough, designers can generate multiple ideas and variations in a short amount of time, allowing them to experiment and refine their designs.

To get input and new ideas, distribute your sketches to the team, key stakeholders, or potential users. Through collaboration, the design can be improved and made to conform to user requirements and expectations. We can create interactive prototypes or wireframes to further develop and test our creative concepts after polished sketches.

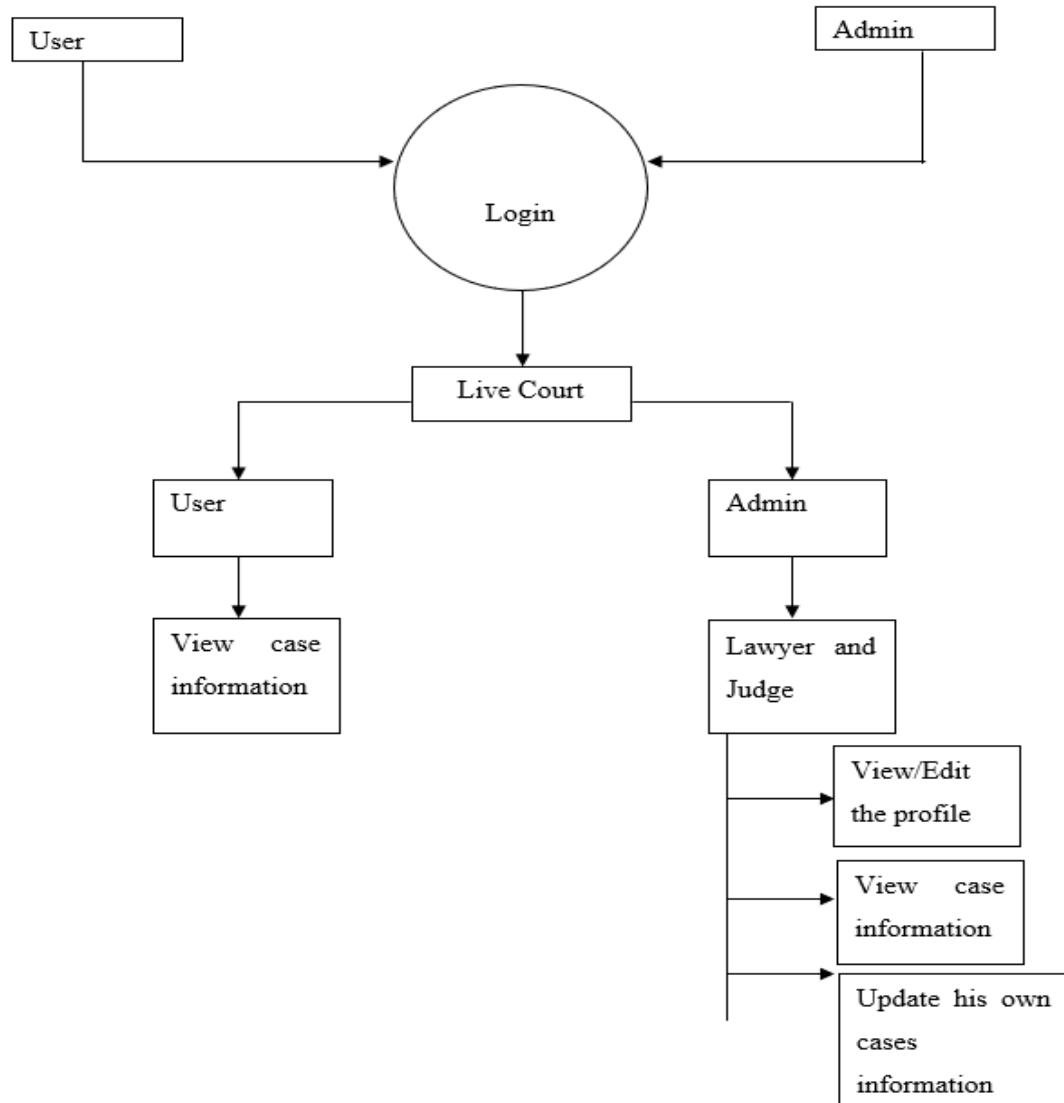
Advantages of Sketches-

- Speed and effectiveness: Designers can swiftly produce and refine concepts by sketching them out. It is a quick and effective technique to investigate several design alternatives and variants.
- Flexibility and Freedom: Sketching provides designers with the freedom to experiment and take risks. Since sketches are not overly polished or finalized, designers can easily modify and refine their ideas without feeling restricted.
- User-Focused Design: Sketches help designers keep the focus on the user experience. By quickly sketching out interface elements and user flows, designers can visualize and iterate on designs that address user needs and goals.
- Cost-Effective: A cost-effective method of design finding is sketching. It is feasible for designers at different phases of the design process because it needs few materials and tools.
- Design Exploration and Creativity: Sketching promotes design exploration and creativity. It allows designers to think freely, experiment with different ideas, and push the boundaries of what's possible in the user interface design

Mental Model

A user's perception of a user interface based on prior knowledge, expectations, and experiences is referred to as their mental model in user interface design (UI). It is a mental representation that people have of how a system or user interface functions and how they should interact with it.

The difference between the user's expectations and the reality of the interface can be solved by designing with mental models in mind. It enables designers to produce user-friendly interfaces that are intuitive and conform to users' prior knowledge.



Personas:

Scenario	Goals and Expectation
Client wants to view the Court case details	Client can login or signup then can view the cases

localhost:10516/WebSite1 Live Court localhost:10516/WebSite1 Live Court localhost:10516/WebSitedummypjct/View/Default.aspx

Live Court

Enter a keyword Search

Home Details Enquiry About Contact

The Law books of Court
The front view of the high Court of Rajasthan
Rajasthan High Court
The court view on a working day

Court interaction

More

Login

Select User Type: User ▼

Username
Password

Forgot Password Login Sign up

More

SONGS 12:31 PM

LIVE COURT JUDGE'S ADI Live Court localhost:10516/WebSitedummypjct/View/ClientReg.aspx

Live Court

Home Details Enquiry About Contact

The Law Books of Court
The front view of the high Court of Rajasthan
Rajasthan High Court
The court view on a working day

Registration

Client Registration

Name	<input type="text"/>
Address	<input type="text"/>
City	<input type="text"/> Select City ▼
State	<input type="text"/>
Nationality	<input type="text"/>
Pincode	<input type="text"/>
Date of Birth	<input type="text"/>
Gender	<input type="radio"/> Male <input type="radio"/> Female
Mobile Number	<input type="text"/>
Email-ID	<input type="text"/>
Marital Status	<input type="radio"/> Single <input type="radio"/> Married
Photo	<input type="file"/> Choose File / No file chosen

SONGS 7:07 AM

Live Court

localhost:10516/WebSitedummypjct/View/Clientcases.aspx

Live Court

Enter a keyword

Home Details Enquiry About Contact

The Law books of Court

The front view of the high Court of Rajasthan

Rajasthan High Court

The court view on a working day

Case Details

caseno	case_type	lawyer1	lawyer2	client1	client2	judge_name	submission_date	prev_h_date	next
102	Criminal	Sathosh Kumar	Revati Goyal	Tapasya Sharma	Roshan Jain	Jai Rathore	2/2/2005 12:00:00 AM	3/12/2006 12:00:00 AM	5/8/2006 12:00:00 AM

SONGS 7:17 AM

Practical 5

Aim: To create Low fidelity/High fidelity Wireframe

What is wireframe?

Wireframing is the process of creating a visual representation, typically in black and white or grayscale, of a website, mobile app, or user interface design. Wireframes serve as a blueprint or skeletal framework that outlines the structure, layout, and functionality of a digital product or interface. Wireframes are typically low-fidelity representations, using simple shapes, lines, and placeholder text to convey the design concepts. They are often created using specialized software tools or even drawn by hand on paper. Wireframes serve as a communication tool between designers, developers, and stakeholders, enabling discussions and iterations before moving into the visual design and development stages of a digital project.

Key aspects of wireframing include:

- **Structure:** Wireframes define the overall structure and organization of the interface, including the placement of key elements such as navigation menus, content sections, and interactive components.
- **Layout:** Wireframes establish the arrangement and positioning of various elements on the page, indicating the relative sizes and proportions. This helps designers and stakeholders visualize the spatial relationships between different elements.
- **Functionality:** Wireframes illustrate how the interface will function by representing interactive elements such as buttons, forms, dropdowns, and other user input components. However, wireframes do not focus on the visual design details or the actual implementation of these interactions.
- **Content Placement:** Wireframes provide a framework for placing and organizing content, such as text, images, and media elements, within different sections of the interface. This allows designers and stakeholders to evaluate the content hierarchy and flow.
- **Navigation:** Wireframes outline the navigation structure and flow, showing the placement of menus, buttons, links, and other navigational elements. This helps to ensure intuitive and user-friendly navigation throughout the interface.

Types of wireframes:

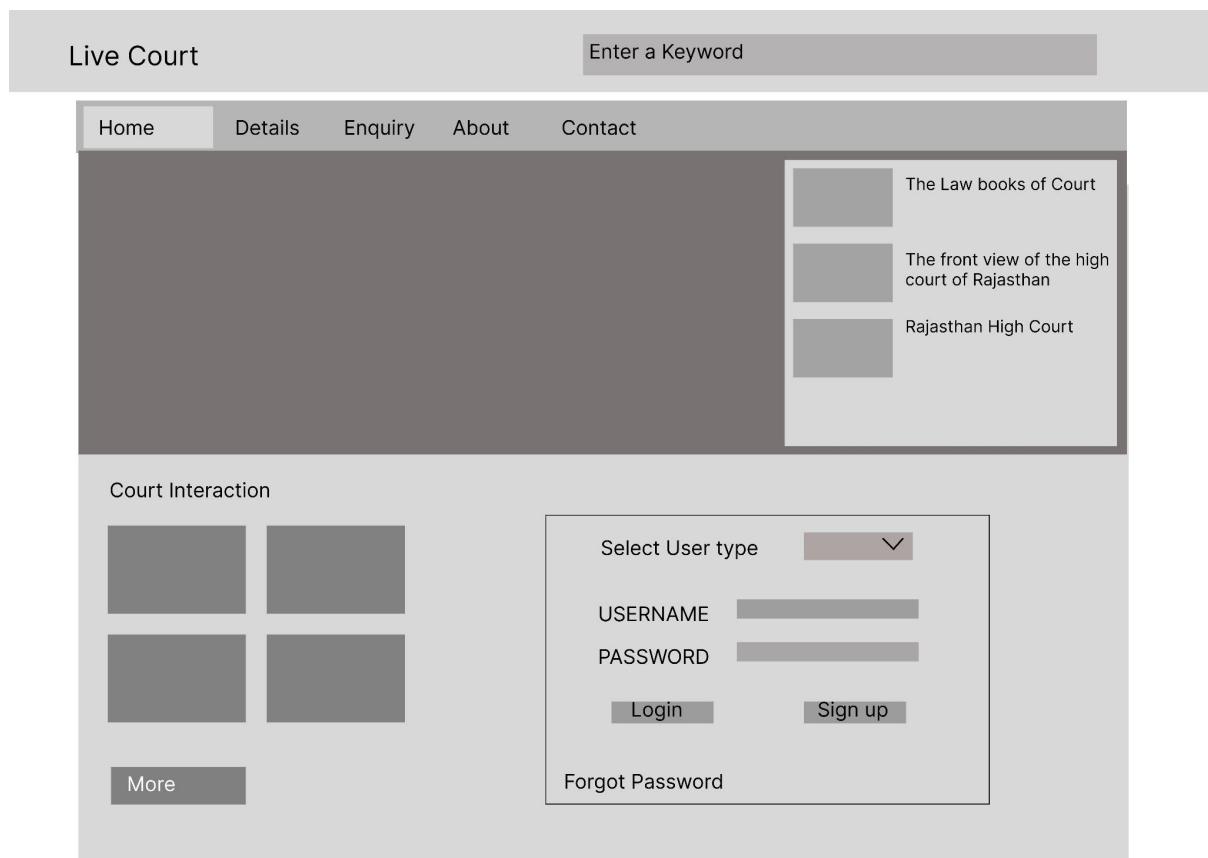
There are two types of wireframes that serve different purposes throughout the design process. Here are the types:

1. **Low-Fidelity Wireframe:** Low-fidelity wireframes are basic, simplified representations of a design concept. They typically use simple shapes, lines, and placeholder text to focus

on the overall structure and layout. Low-fidelity wireframes are quick to create and are useful for initial ideation, brainstorming, and gathering feedback without getting into detailed visual design.

2. **High-Fidelity Wireframe:** High-fidelity wireframes provide a detailed representation of the user interface design. They incorporate visual elements, typography, colors, and sometimes real content to closely resemble the final product. High-fidelity wireframes are used when precise visual details and interactions need to be communicated to stakeholders or for usability testing purposes.

Home Page



Login

Government Panel

Home Contacts About Us

USERNAME

PASSWORD

[Forgot Password](#)

Judge Registration

Government Panel

Home Contacts About Us

Judge Registration

Name

Address

City

State

Nationality

Address

Pincode

Gender

• • •

Lawyer Registration



Government Panel

Home Contacts About Us

Lawer Registration

Name	
Address	
City	
State	
Nationality	
Address	
Pincode	
Gender	

• • •

Register

Client Registration

Live Court Enter a Keyword

Home Details Enquiry About Contact

The Law books of Court

The front view of the high court of Rajasthan

Rajasthan High Court

Client Registration

Name	
Address	
Pincode	
Gender	

• • •

Register

Lawyer's Admin Panel



Rajasthan High Court (Lawyer's Admin Panel)

Home Profile Contact About US

History
Constitution
Jurisdiction
Judicial Officers
Logout

Submit

Case Details

Live Court Enter a Keyword

Home Details Enquiry About Contact

The Law books of Court
The front view of the high court of Rajasthan
Rajasthan High Court

Case Details

Practical 6

Aim: Creating a Prototype using Figma

What is Prototyping?

When designing online application systems that demand a high level of user involvement, software prototyping is quite helpful. Prototyping is a highly effective way to communicate the precise look and feel even before the software is completed for systems that require users to fill out forms or view different screens before data is processed. Software with a lot of information processing and internal functionality that requires minimal programming is typically not amenable to prototyping.

In such cases, prototype development might add extra costs and should demand a significant amount of extra work.

Advantages of Software Prototyping:

- Provides a feel to the users on how the proposed system would look like
- Helps in identifying errors if any.
- Prototyping is also considered a risk reduction function because it allows non-existent performance to be seen, lowering the risk of failure.
- Assists team members in effectively communicating.
- Customer satisfaction exists, and he can feel the product from the start.
- There will be no risk of software loss.

DESCRIPTION:

- **User Testing:** Prototypes allow designers to gather feedback from users early in the design process. By simulating interactions, designers can observe how users navigate through the interface, identify pain points, and make necessary improvements.
- **Iterative Design:** Prototyping enables designers to iterate and refine their design concepts based on user feedback. Through successive iterations, prototypes help designers refine the user interface, interactions, and overall user experience.
- **Stakeholder Communication:** Prototypes serve as a visual communication tool to present design ideas and concepts to stakeholders. They provide a tangible representation of the final product, making it easier for stakeholders to understand and provide feedback.
- **Validation of Design Decisions:** Prototyping allows designers to test and validate their design decisions before investing in development. By creating interactive prototypes, designers can simulate user interactions and evaluate the effectiveness of their design choices.
- **Collaboration:** Prototyping facilitates collaboration between designers, developers, and other stakeholders. It helps in aligning the vision, understanding requirements, and identifying technical feasibility early on. Prototyping in UI/UX design can range

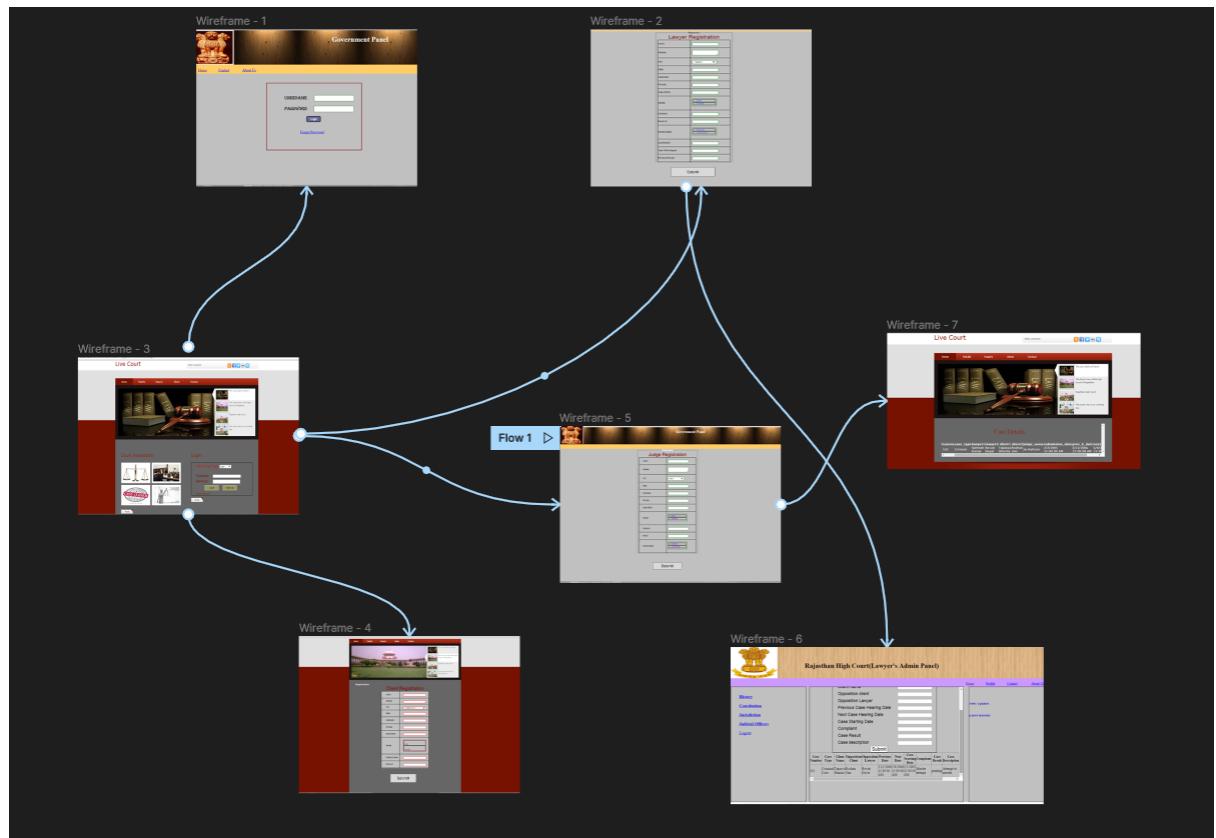
from low-fidelity wireframes and mockups to high-fidelity interactive prototypes, depending on the project's needs and stage of development. The main goal is to create a representation that accurately captures the user interface and interactions to guide the design process and ensure a successful user experience.

Steps involved in testing Prototype:

1. **Define Testing Objectives:** Clearly define the goals and objectives of the prototype testing. Determine what specific aspects you want to evaluate, such as usability, navigation, interactions, or overall user experience.
2. **Create Test Scenarios:** Develop a set of realistic and relevant test scenarios that reflect typical user tasks and goals. Test scenarios should cover various interactions and workflows within the prototype.
3. **Recruit Test Participants:** Identify and recruit representative users who match the target audience or user personas. Aim for a diverse group of participants to gather a range of perspectives and feedback.
4. **Conduct User Testing Sessions:** Schedule and conduct user testing sessions where participants interact with the prototype based on the predefined test scenarios. Encourage participants to think aloud and provide feedback as they navigate through the prototype.
5. **Observe and Collect Data:** Observe participants' interactions and collect both qualitative and quantitative data. Take note of their feedback, pain points, suggestions, and any issues they encounter during the testing process.
6. **Analyze and Evaluate Results:** Analyze the collected data, both subjective feedback and objective observations. Identify common patterns, trends, and issues that emerge during the testing sessions. Evaluate the prototype's strengths and weaknesses based on user feedback.
7. **Iterate and Improve:** Based on the insights gained from the testing sessions, make necessary improvements and refinements to the prototype. Prioritize and address the identified issues to enhance the user experience and address user needs.
8. **Repeat Testing and Iteration:** Conduct multiple rounds of testing and iteration, progressively refining the prototype based on user feedback. Iterate and test until the desired level of usability and user satisfaction is achieved.
9. **Document Findings and Recommendations:** Document the findings, insights, and recommendations from the testing process. Create a summary report that outlines the issues encountered, improvements made, and suggestions for further enhancements.

10. Communicate Results: Share the testing results and recommendations with the design team, stakeholders, and development team. Use the findings to inform design decisions, guide further iterations, and ensure alignment among all stakeholders.

Live Court System Website Prototype



Practical 7

Aim: Implementation of Live Court System Website

Theory :

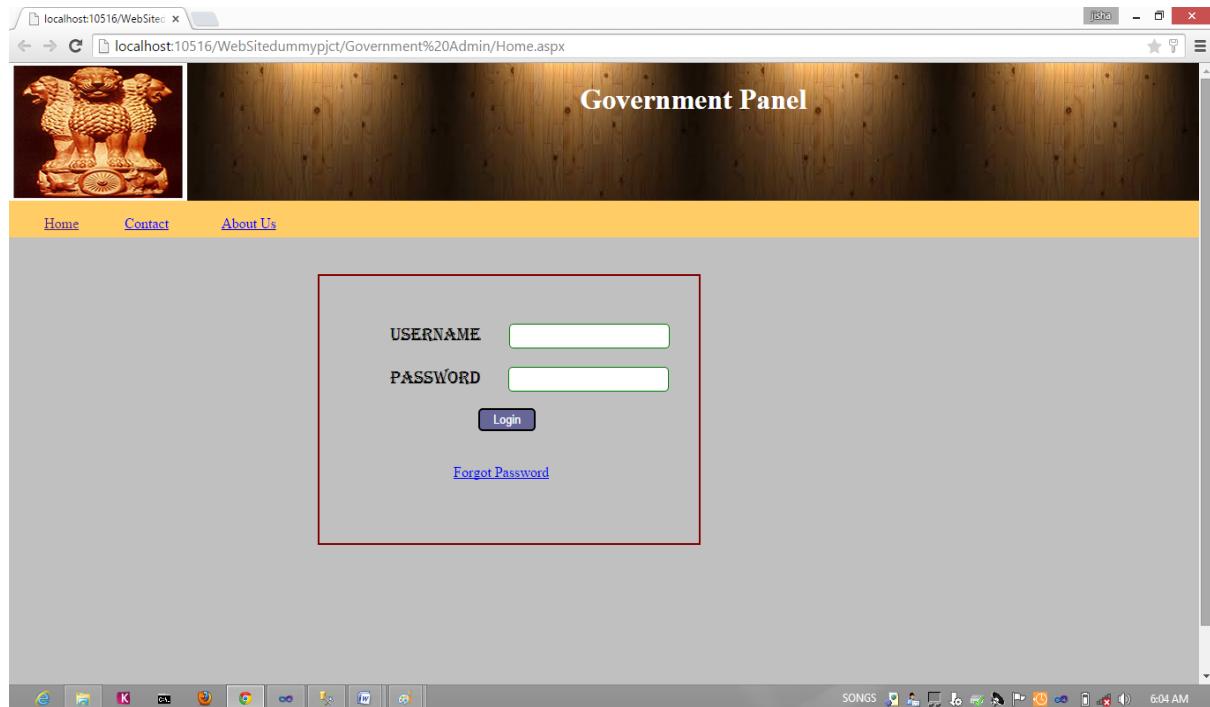
The user interface (UI) plays a crucial role in the success of any digital product or application. Here are some key reasons highlighting the importance of a well-designed user interface:

1. **User Experience:** The UI directly impacts the user experience (UX) of a product. A well-designed UI enhances usability, making it intuitive, efficient, and enjoyable for users to interact with the application. A positive user experience leads to higher user satisfaction, engagement, and increased usage of the product.
2. **First Impressions:** The UI is often the first point of contact between users and the product. A visually appealing and well-structured UI creates a positive first impression, capturing users' attention and encouraging them to explore further. A poor or confusing UI can lead to user frustration and abandonment of the product.
3. **Ease of Use:** A well-designed UI focuses on simplicity and ease of use, ensuring that users can navigate and accomplish tasks efficiently. Clear and intuitive navigation, logical organization of content, and thoughtful placement of interactive elements contribute to a seamless user experience, reducing cognitive load and improving user productivity.
4. **Brand Identity and Consistency:** The UI reflects the brand identity and personality of a product or company. Consistent use of colors, typography, visual elements, and overall design language creates a cohesive and recognizable brand image. A strong brand identity through the UI fosters trust, credibility, and user loyalty.
5. **Accessibility and Inclusivity:** A well-designed UI takes into consideration accessibility guidelines and ensures that the product is usable by a diverse range of users, including those with disabilities. Designing an inclusive UI allows for equal access and usability for all users, promoting a more inclusive and diverse user base.
6. **Error Prevention and Recovery:** The UI can help prevent errors by providing clear instructions, feedback, and error handling mechanisms. Well-designed forms, validation messages, and informative error prompts guide users to input correct information and recover from errors seamlessly. This reduces user frustration and improves overall user satisfaction.
7. **Differentiation in the Market:** In a competitive market, a well-designed UI can provide a competitive advantage. A visually appealing, user-friendly, and innovative UI sets a product apart from competitors and attracts users. It can be a key factor in users choosing one product over another with similar functionality.
8. **Adaptability and Scalability:** An effective UI design considers the future growth and scalability of the product. It allows for flexibility and adaptability, accommodating new features, updates, and evolving user needs without sacrificing usability or consistency. In summary, a well-designed user interface is essential for delivering a positive user experience, establishing brand identity, promoting usability, and differentiating a product in the market. It directly influences user engagement, satisfaction, and ultimately contributes to the success of the product or application.

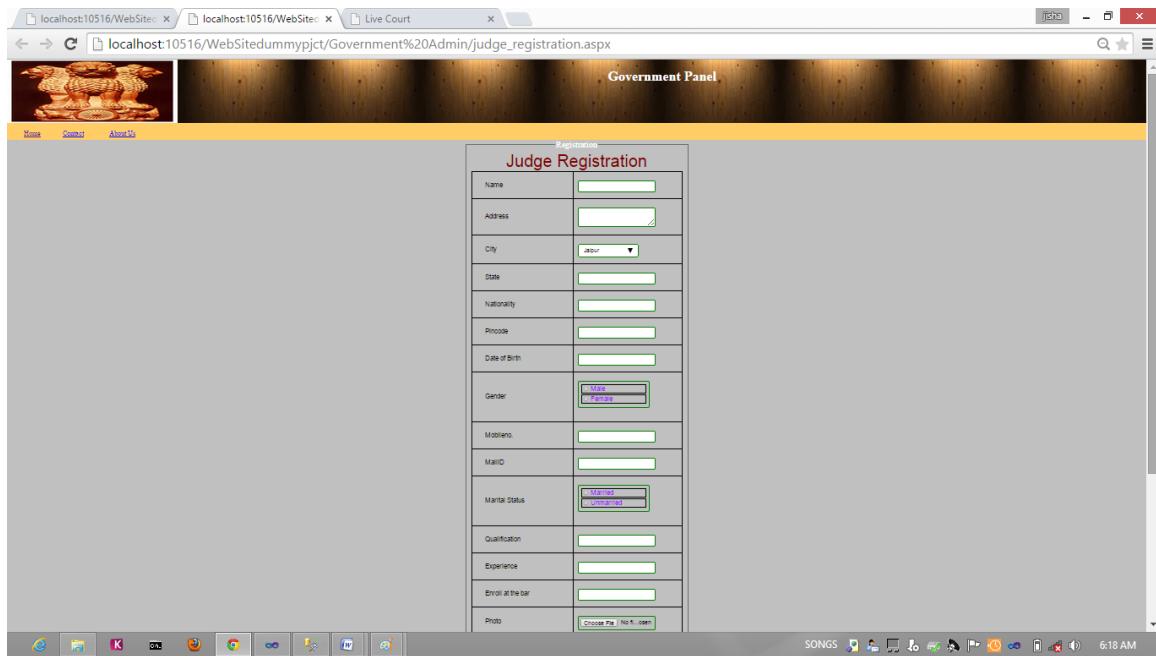
Form Design

Government Part

Home.aspx



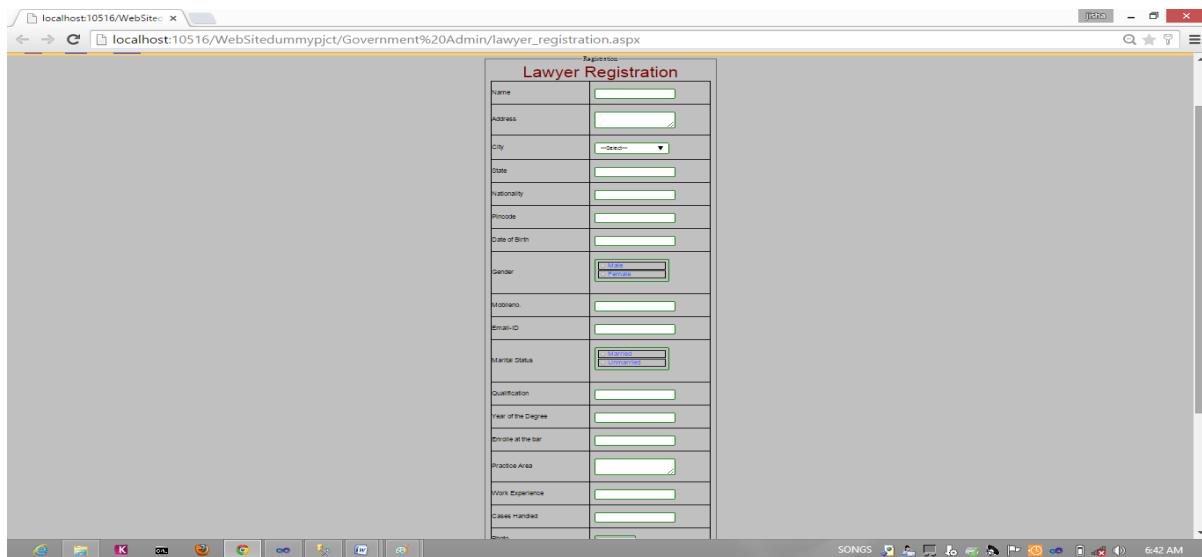
Judge_registration.aspx



A screenshot of a web browser window showing the "Judge Registration" form. The title bar indicates the URL is `localhost:10516/WebSitedummypjct/Government%20Admin/judge_registration.aspx`. The page has a header with the Indian National Emblem and the text "Government Panel". Below the header is a navigation menu with links for "Home", "Contact", and "About Us". The main content area is titled "Judge Registration" and contains a table with the following fields:

Registration	
Name	<input type="text"/>
Address	<input type="text"/>
City	<input type="text"/> Jaipur
State	<input type="text"/>
Nationality	<input type="text"/>
Pincode	<input type="text"/>
Date of Birth	<input type="text"/>
Gender	<input type="text"/> Female
Mobile no.	<input type="text"/>
Email ID	<input type="text"/>
Marital Status	<input type="text"/> Married
Qualification	<input type="text"/>
Experience	<input type="text"/>
Enroll at the bar	<input type="text"/>
Photo	<input type="file"/> Choose File... Not Selected

Lawyer_registration.aspx

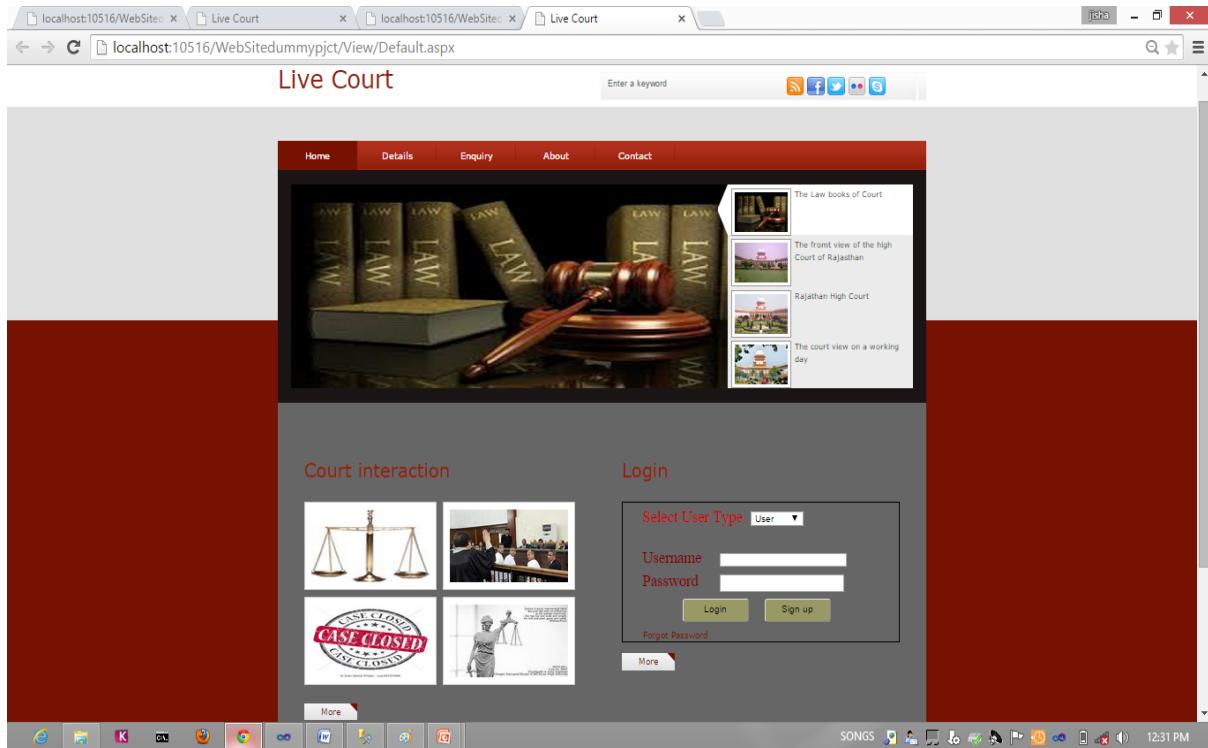


A screenshot of a web browser window showing the "Lawyer Registration" form. The title bar indicates the URL is `localhost:10516/WebSitedummypjct/Government%20Admin/lawyer_registration.aspx`. The page has a header with the Indian National Emblem and the text "Government Panel". Below the header is a navigation menu with links for "Home", "Contact", and "About Us". The main content area is titled "Lawyer Registration" and contains a table with the following fields:

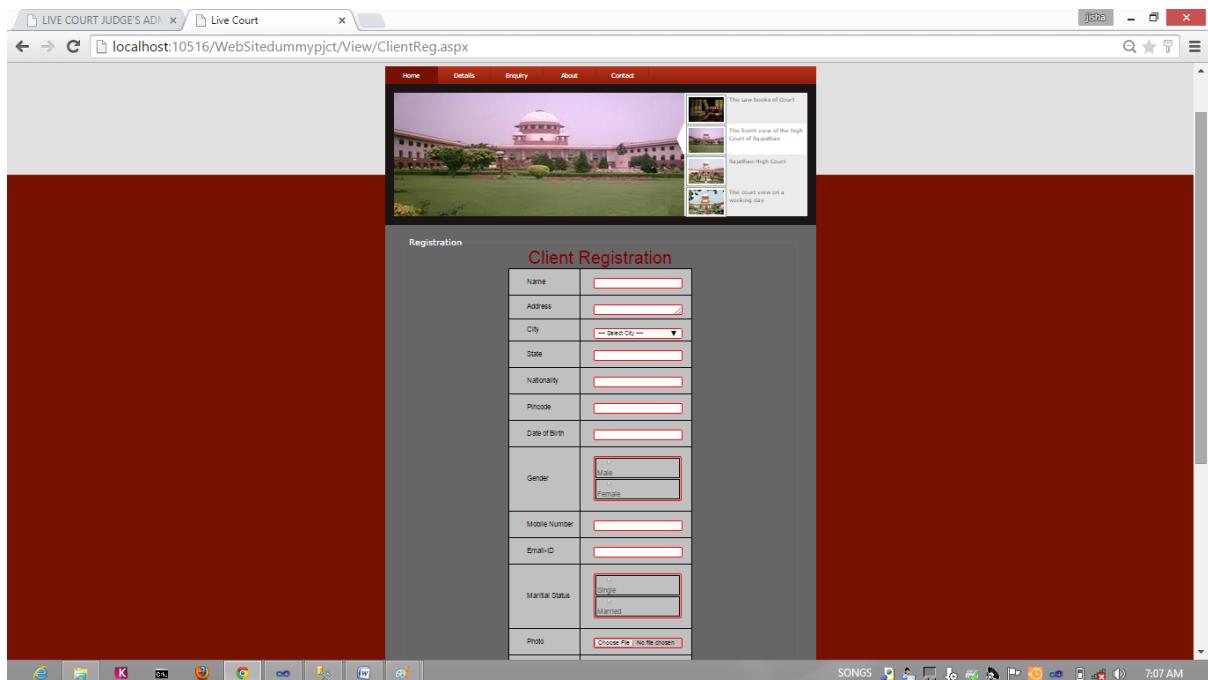
Registration	
Name	<input type="text"/>
Address	<input type="text"/>
City	<input type="text"/> Jaipur
State	<input type="text"/>
Nationality	<input type="text"/>
Pincode	<input type="text"/>
Date of Birth	<input type="text"/>
Gender	<input type="text"/> Male
Mobile no.	<input type="text"/>
Email ID	<input type="text"/>
Marital Status	<input type="text"/> Unmarried
Qualification	<input type="text"/>
Year of the Degree	<input type="text"/>
Enroll at the bar	<input type="text"/>
Practice Area	<input type="text"/>
Work Experience	<input type="text"/>
Cases Handled	<input type="text"/>
Photo	<input type="file"/> Choose File... Not Selected

User Part

Defalut.aspx



Client_registration.aspx



Client_caseStatus.aspx

Live Court jisha

localhost:10516/WebSitedummypjct/View/Clientcases.aspx

Live Court

Enter a keyword

Home Details Enquiry About Contact

The Law books of Court

The front view of the high Court of Rajasthan

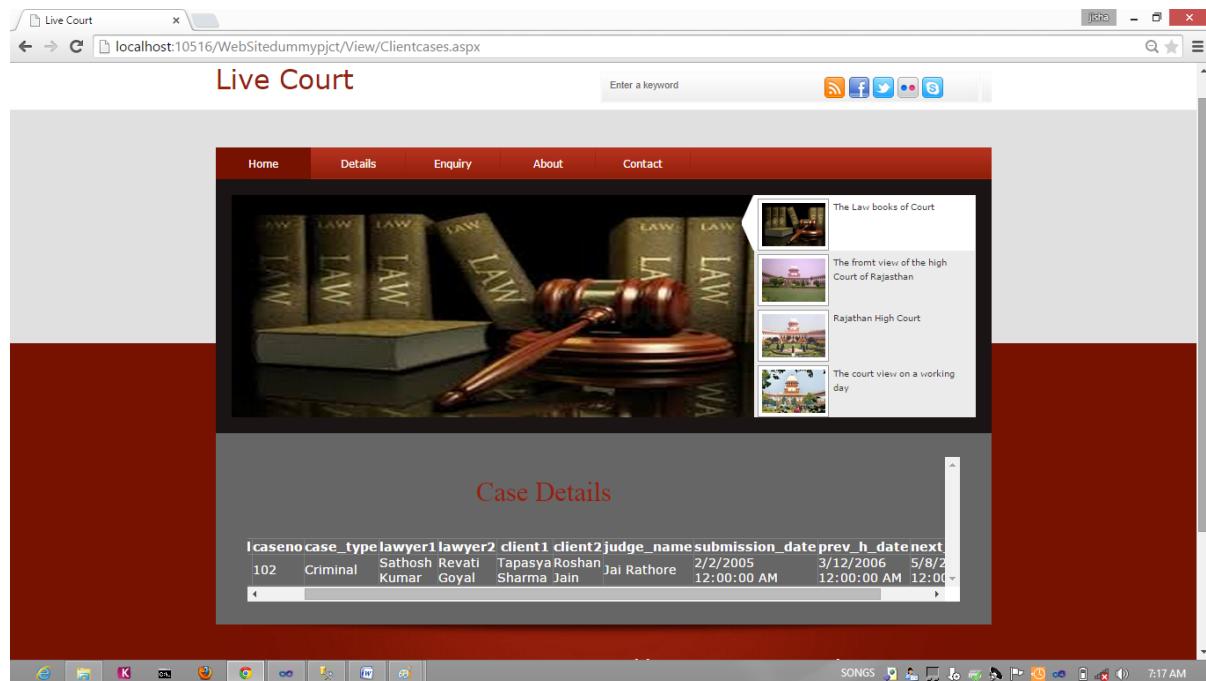
Rajasthan High Court

The court view on a working day

Case Details

caseno	case_type	lawyer1	lawyer2	client1	client2	judge_name	submission_date	prev_h_date	next_h_date
102	Criminal	Sathosh Kumar	Revati Goyal	Tapasya Sharma	Roshan Jain	Jai Rathore	2/2/2005 12:00:00 AM	3/12/2006 12:00:00 AM	5/8/2006 12:00:00 AM

SONGS 7:17 AM



Judge's Admin Panel

Judge_profile.aspx

LIVE COURT JUDGE'S ADI x jisha

localhost:10516/WebSitedummypjct/Admin%20Judge/pro.aspx

Rajasthan High Court(Judge's Admin Panel)

Home Profile Contact About Us

PROFILE

Name: Ravindra Singh Rathore

Address: Pno:35 ,Queens Road ,

City: Jaipur

State: Rajasthan

Pincode: 302025

Mobile Number: 918764181034

Email-ID: ravindras@gmail.com

Marital Status: Married

Photo: Choose File | No file chosen

SONGS SONGS 6:49 AM

Judge_cases.aspx

LIVE COURT JUDGE'S ADI x jisha

localhost:10516/WebSitedummypjct/Admin%20Judge/Jcasefulldetail.aspx

Rajasthan High Court(Judge's Admin Panel)

Home Profile Contact About Us

Home

Previous Hearing Date: [Input Field]
Next Hearing Date: [Input Field]
Complaint: [Input Field]
Case Status: [Input Field]
Case Description: [Input Field]

Submit

Case Number	Case Type	First Lawyer	Second Lawyer	Case Submission Date	Case Previous Hearing Date	Case Next Hearing Date	Complaint	Csae Result	Csae Description	
101	Domestic Violence	Girish Yadav	Raj Kumar	12/3/2008 12:00:00 AM	8/6/2008 12:00:00 AM	7/9/2008 12:00:00 AM	Ram Tortured Savita	Pending	Ram cased against savita	Edit Delete
102	Criminal	Sathosh Kumar	Revati Goyal	2/2/2005 12:00:00 AM	12/3/2006 12:00:00 AM	8/5/2006 12:00:00 AM	attempt to murder case	Pending	Roshan Jain attempted to murder Ms. Tapasya sharma	Edit Delete

News Updates
Latest Records

SONGS SONGS 6:58 AM

Lawyer's Admin Panel

Lawyer_profile.aspx

The screenshot shows a web page titled "Rajasthan High Court(Lawyer's Admin Panel)". On the left, there is a sidebar with links: History, Constitution, Jurisdiction, Judicial Officers, and Logout. The main content area is titled "PROFILE" and contains a photo of a man. Below the photo is a form with the following fields:

Name	Bhaskar Singh
Address	Pno:87, Prem nagar, Jhotwara,
City	Kota
State	Rajasthan
Pincode	302012
Mobile Number	919887084371
Email-ID	Bhaskar64@gmail.com
Marital Status	Married
Photo	[Choose File] No file chosen
Password	12345

At the bottom of the form are two buttons: "Edit" and "Save".

The top navigation bar includes Home, Profile, Contact, and About Us. The right sidebar has links for News Updates and Latest Records. The bottom taskbar shows various system icons.

Lawyer_cases.aspx

The screenshot shows a web page titled "Rajasthan High Court(Lawyer's Admin Panel)". On the left, there is a sidebar with links: History, Constitution, Jurisdiction, Judicial Officers, and Logout. The main content area has a form for entering case details:

Client Name	
Opposition client	
Opposition Lawyer	
Previous Case Hearing Date	
Next Case Hearing Date	
Case Starting Date	
Complaint	
Case Result	
Case description	

Below the form is a "Submit" button. To the right of the form is a table displaying case information:

Case Number	Case Type	Client Name	Opposition Client	Opposition Lawyer	Previous Date	Next Date	Case Starting Date	Complaint	Case Result	Case Description
102	Criminal Case	Tapasya Sharma	Roshan Jain	Revati Goyal	3/12/2006 12:00:00 AM	5/8/2006 12:00:00 AM	2/2/2005 12:00:00 AM	Murder attempt	Pending	Attempt to murder

The top navigation bar includes Home, Profile, Contact, and About Us. The right sidebar has links for News Updates and Latest Records. The bottom taskbar shows various system icons.

Practical 8

Aim : Testing

User interface (UI) design : User interface (UI) design refers to the process of creating visually appealing and user friendly interfaces for software applications, websites, or any digital product that users interact with. It involves designing the layout, visual elements, interaction patterns, and overall aesthetics of the user interface to enhance the user experience (UX).

Here are some key principles and considerations in user interface design:

User-Centered Design: The design should prioritise the needs, goals, and expectations of the target users. It's important to understand the target audience and create an interface that is intuitive and easy to use for them.

Consistency: Maintaining consistency throughout the interface helps users understand and navigate the system more effectively. Consistent use of colors, typography, icons, and interaction patterns creates a sense of familiarity and reduces cognitive load.

Simplicity: A clean and simple interface is crucial for usability. Avoid cluttered design and aim for a minimalist approach that focuses on essential elements. Use white space effectively to enhance visual hierarchy and readability.

Visual Hierarchy: Arrange the elements on the interface in a way that guides users' attention and highlights important information. Utilize techniques such as size, color, contrast, and positioning to establish a clear visual hierarchy.

Navigation: Design an intuitive navigation system that allows users to easily move through different sections or features of the interface. Use clear labels, consistent placement, and familiar patterns to aid navigation.

Responsive Design: With the increasing variety of devices and screen sizes, it's important to design interfaces that adapt and work well across different platforms (e.g., desktop, mobile, tablets). Responsive design ensures a seamless experience on various devices.

Feedback and Affordance: Provide clear and immediate feedback to users when they interact with interface elements. Visual cues, animations, and appropriate use of microinteractions help users understand the system's response and guide their actions.

Accessibility: Design interfaces that are inclusive and accessible to users with disabilities. Consider factors such as color contrast, font size, keyboard navigation, and screen reader compatibility to ensure equal access for all users.

Branding and Aesthetics: Reflect the brand's visual identity through the interface design. Use appropriate colors, typography, and imagery that align with the brand's style and personality. A visually appealing interface can enhance the overall user experience.

Iterative Design Process: UI design is an iterative process that involves continuous testing, gathering feedback, and making improvements. User testing, prototyping, and usability studies can help identify areas of improvement and refine the design. Remember, UI design is closely linked with UX design, and both aspects should be considered together to create a

compelling and user-friendly interface that meets the users' needs and expectations. Mistake to avoid in UI design While designing a user interface (UI), it's important to be aware of common mistakes that can hinder the user experience and overall usability.

ID	Test Case	Pre-condition	Test Steps	Test Data	Expected Output	Actual Output	Status
001	Verification of Login Page with Valid Username and Password	Username and Password need to match for Log In	a. Type correct Username or Email Address b. Type correct Password c. Press on the Log In button	a. Valid Username b. Valid Password c. Button clicked	Log In Successful	Log In Successful	Pass
002	Verification of Login Page with Valid Username and invalid Password	Username and Password need to match for Log In	a. Type correct Username or Email Address b. Type correct Password c. Press on the Log In button	a. Valid Username b. Invalid Password c. Button clicked	Error: The password you entered for the username Jacob is incorrect. Lost your password?	As expected	Pass
003	Verification of Login Page with Invalid Username and Valid Password	Username and Password need to match for Log In	a. Type correct Username or Email Address b. Type correct Password c. Press on the Log In button	a. Invalid Username b. Valid Password c. Button clicked	Error: The username Jacob2 is not registered on this site. If you are unsure of your username, try your email address instead.	As expected	Pass
004	Verification	Username	a. Type	a. Invalid	Error: The	As	Pass

	of Login Page with Invalid Username and Invalid Password	and Password need to match for Log In	correct Username or Email Address b. Type correct Password c. Press on the Log In button	Username b. Invalid Password c. Button clicked	username Jacob2 is not registered on this site. If you are unsure of your username, try your email address instead.	expected	
005	Verification of Login Page with Valid Email Address and Invalid Password	Username and Password need to match for Log In	a. Type correct Username or Email Address b. Type correct Password c. Press on the Log In button	a. Valid Email b. Invalid Password c. Button clicked	Error: The password you entered for the email address jacob@exceledemy.com is incorrect. Lost your password?	As expected	Pass
006	Verification of Login Page with Valid Email Address and Valid Password	Username and Password need to match for Log In	a. Type correct Username or Email Address b. Type correct Password c. Press on the Log In button	a. Valid Email b. Valid Password c. Button clicked	Log In Successful	Log In Successful	Pass
007	Verification of Login Page with Invalid Email Address and Valid Password	Username and Password need to match for Log In	a. Type correct Username or Email Address b. Type correct Password c. Press on the Log In button	a. Invalid Email b. Valid Password c. Button clicked	Unknown email address. Check again or try your username.	Unknown email address. Check again or try your username.	Pass

008	Verification of Login Page with Invalid Email Address and Invalid Password	Username and Password need to match for Log In	a. Type correct Username or Email Address b. Type correct Password c. Press on the Log In button	a. Invalid Email b. Invalid Password c. Button clicked	Unknown email address. Check again or try your username.	As expected	Pass
009	Verification of Login Page with Valid Username and Password	Username and Password need to match for Log In	a. Type correct Username or Email Address b. Type correct Password c. Press on the Log In button	a. Valid Username b. Valid Password c. Button clicked	Log In Successful	Same Log In page appears	Fail
10	Verification of Login Page with Valid Email Address and Valid Password	Username and Password need to match for Log In	a. Type correct Username or Email Address b. Type correct Password c. Press on the Log In button	a. Valid Username b. Valid Password c. Button can't be clicked	Log In Successful	Log In button not working	Fail

Conclusion: Successfully implemented the Design Testing of Live Court System Website.