

PRACTICAL – 10

AIM: Prepare a detailed case study on Design Thinking methodology in mobile application development (Android or iOS).

THEORY:

Design Thinking:

Designers utilise design thinking to come up with new ideas and develop mobile apps. It is utilised to tackle complex problems and provide clients with desirable answers. It also aids in the resolution of unknown or ill-defined issues. Engineering, medical, business, architecture, sports, research, and mobile app development are just a few of the disciplines where information technology is applied.

Design thinking is a problem-solving strategy that is critical for improving user experience and understanding user demands. It's the ability to combine competing viewpoints to come up with fresh answers. It involves balancing the desirability, technical feasibility, and economic viability of a product or concept in terms of design. It also provides us with a fresh perspective on the issues. It is a human - centered, iterative design approach that typically includes five steps: problem definition, research, ideation, prototyping, and testing. These six steps, however, are not always in that order; they might occur simultaneously or repeatedly.

1. Research your target audience's demands and empathise with them to better understand them. Businesses must empathise with their customers in order to comprehend their demands and develop a solution.
2. Define – the issues based on the study findings, as well as your solutions to these issues.
3. Ideation entails questioning assumptions as well as brainstorming for new ideas and solutions. (If these concepts aren't viable, the ideas or solutions can be evaluated before prototyping begins.)
4. Prototype - to begin constructing a solution prototype.
5. Testing - the prototype to see how your ideas and solutions turn out, as well as their feasibility and viability.
6. After a prototype has been successfully tested, delivery and launch, implementation, iterating, and scaling take place.

Why is design thinking crucial in the development of mobile apps?

Innovation necessitates the use of design thinking. It is critical for a corporation to address an unmet client need through innovation and creativity. A company must constantly innovate and generate new, well-thought-out products in order to exist and succeed. This is when design

thinking comes in handy. UI and UX are at the heart of every mobile app development, as all successful IT organisations understand. As a result, they must create apps that offer a distinct user experience.

Because consumers currently have easy access to worldwide marketplaces, they no longer distinguish between physical and digital experiences. As a result, it becomes increasingly difficult for businesses to differentiate their products or services from those of their competitors. Companies, on the other hand, can differentiate themselves from their competition by designing a mobile app that provides a distinctive user experience for end-users. As a result, IT organisations must work to bridge the gap between businesses and end-users.

According to studies, 80% of millennials carry their smartphones with them at all times of the day and night. They can't imagine life without their cell phones. It is now easy to use mobile applications due to the broad availability of the internet. Having a mobile app is a must these days. As a result, any company that wants to succeed and cater to millennials and other customers should develop mobile apps. Mobile apps have changed the face of tech firms and revolutionised the way they do business. Many marketers believe that using mobile apps is the most efficient approach to engage with clients and grow their brand. It's also simple to get straight feedback from customers.

Design thinking also lowers the risk of releasing innovative concepts. It promotes rapid learning and the development of exploratory, incremental, and novel ideas and solutions. When used appropriately, it also catches the attention of your target audience and aids in the generation of business.

- Design Thinking is based on a human-centred approach, it focuses on the end users and how to improve and enhance the user experience.
- Design Thinking comprises diverse teams, the aggregate wisdom, expertise, and experience of all involved is available when developing solutions.
- It also entails coming up with unorthodox solutions. As a result, while solving genuine challenges, value is created and delivered to end-users.
- For design-driven companies, going to market with an MVP (minimum viable product) is ideal. In such circumstances, they take consumer feedback into account, incorporate it into their design, and produce a new version of the product. For example, Facebook, Instagram, WhatsApp, and other social media platforms.
- It aids in the creation of successful brands as well as the generation of revenue from these brands.

Advantages of design thinking in mobile application development

1. Increased revenue — Because mobile applications are simple to use, they can reach a larger audience than traditional platforms. If the end-user experience is flawless, they will use your app again and again. This frequent use indicates brand loyalty, which might lead to an increase in sales.
2. Current and future marketing trends - Mobile apps are the need of the hour and the way of the future for a variety of apps and enterprises. As a result, developing mobile applications is critical for organisations.
3. Marketers may now focus on advertising their businesses via web and mobile platforms, thanks to the introduction of social media and mobile applications. The mobile apps can be accessed from anywhere in the world thanks to the internet's accessibility. Customer loyalty and brand reinforcement are also shown in the customer's use of the app on a regular basis.
4. Connecting with customers is simple – one of the biggest advantages of mobile apps is the ease with which you can connect with your customers. Customers can easily submit feedback, allowing businesses to learn from and fix their shortcomings straight from their customers.

CONCLUSION:

In this practical, we learned about Mobile Application Development (MAD). We studied about its advantages and disadvantages. We learned about Design Thinking and how it benefits in mobile application development.

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