

CLARITY TECHWORKS

Newsletter on Industrial Visit

Summary

Clarity Techworks is a Singapore-based privately held FinTech solution provider that specializes in blockchain digital asset solutions. Although it focuses on blockchain, it also has competence in cybersecurity, cloud solutions, programming, and UI/UX design. As UTM is an industry partner of this organization, we had the opportunity to visit their Malaysia office in Sunway City Iskandar Puteri. Upon arriving at the office, the Clarity team members warmly greeted us. We were then divided into groups of 8-10 persons, with each group assigned to a Clarity team member. The office had five stations, and each group rotated through them for 15 minutes. There were five stations within.

1. UI/UX Design
2. Android developer,
3. iOS Developer.
4. Quality Assurance (QA).
5. Web Application Developer.
6. The Web API

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The presentations helped students comprehend and visualise the staff's job responsibilities better by adopting an interactive method in which students could play and use the demonstration app. Students can also see the codes used in constructing the sample programme, which helps them grasp the behind-the-scenes of developing application for web, android and iOS.



Technologies and Issues Discussed

UI/UX DESIGN

A UX/UI designer develops and designs the user interfaces and experiences for websites and applications. They are in charge of user-centred designs, layouts, compositions, and prototyping. Programming knowledge is not required but is recommended in this sector. Creativity is more essential here. Figma, Sketch

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and Adobe are utilised for design. This station allowed us to edit and design a webpage layout with Figma, which was a lot of fun.

ANDROID DEVELOPER

They create applications for the Android operating system. An Android developer's job is more complex than that of an iOS developer because there are more Android devices with varied setups than iOS. Clarity uses the Kotlin programming language which is akin to Java and the Visual Studio code editor. Another application, JIRA, is used to organise and distribute activities as well as track progress. Following implementation, the codes are sent to the testing team. After debugging and optimizations, the software gets published on Google Play Store.

IOS DEVELOPER



iOS developers create applications specifically for iOS operating systems. They use Swift and Objective-C programming languages. There are several parallels between the jobs of Android and iOS developers. After coding, testing, debugging

and optimisation, the programme is released to the Apple App Store. Both Android and iOS developers avoid using Flutter as a development platform since it does not match Clarity's standard criteria and for security reasons.

QUALITY ASSURANCE



Clarity's testing team is responsible for ensuring the highest quality software or goods before they are deployed for production. Their responsibilities include documenting any defects or errors discovered when running a produced programme and creating a report based on the findings, known as a 'Bug Ticket'. Automation testing is used to reduce testing time and workload, resulting in more efficient testing. To automate test cases, a QA analyst must develop a code segment that uses Selenium or Appium to run test cases automatically countless time.

WEB APP DEVELOPER

Unlike Android and iOS, which must be launched through the app store, web apps can be started straight from a browser. This team focuses on the front-end development of web applications.



They build the structure with HTML, style it with CSS, and add interactivity with JavaScript. The Visual Studio Code editor is also utilised here because it is more adaptable, while React is used for frameworks and libraries. After development, the apps are tested and optimised across multiple web browsers to ensure cross-browser compatibility.

WEB API



Application Programming Interface This team primarily works on the backend of web apps. They specialise in building and implementing APIs using Laravel for the mobile development team; and MySQL in managing, restructuring, and modifying the database; generating and deploying scripts for batch processing of new features; and updating and documenting all API changes so that all teams are alerted.