Design and Development of Absence Management Sub-System and Thin Client Application for Cognizant Employee Portal

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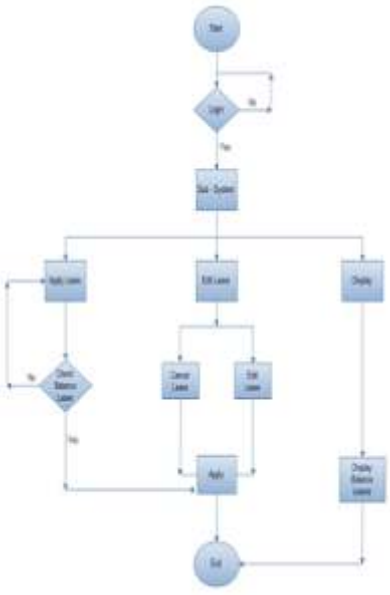
Abstract:

Organisations have to identify suitable absence procedures and practices to manage their employee absence. There may be emergency situations for the employees in an organisation to apply for leave. The android based absence management system helps employees to manage their leaves from any place at any time. The system is to be designed to give an overview of some of the key issues that need to be considered while managing absence of employee effectively. The absence management system which exists in the CTS domain has to be accessed by the employee using their desktop system connected to the Internet for applying leave. This has created several problems to the existing employees as the system is not available in remote places and as they could not apply for a leave under emergency situation.

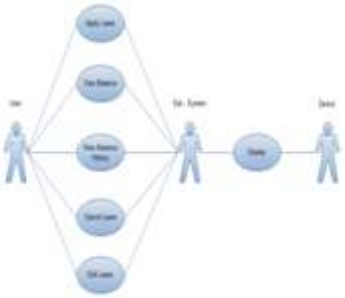
In this project, absence management sub-system and thin client application is designed and developed. A literature review on android SDK, GUI development, and multi-device optimisation is carried out by referring journals, books, manuals, and related documents. Existing employee portal is reviewed to understand its architecture and design. Based on the review conducted, requirements for the Absence Management System (AMS) are arrived and an SRS is developed. The AMS is designed and implemented based on the developed SRS. An application for thin clients which enables employees to use the AMS following appropriate UI design methodology is also designed. The developed application is optimised for multiple handheld devices. Suitable test cases and test scenarios are designed to conduct system testing.

The project develop a thin client application which can be communicated with the absence management system existing in the company's domain for applying leaves or to view and edit the applied leaves through their android phones in future. The project was successfully tested in multiple android phones. The employees are able to apply for leave at anytime.

System architecture



Flowchart of AMS



Use case diagrams

Working of API

View of thin client application