**Development of Android App**

**Group Assignment**

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# Introduction

The aim of this study is to develop an Android Application using Agile methodology. This is a weather app that displays time, region, temperature, etc. The Android application includes several specifications such as weather detection sensors, provide current time, GPS tracking system, Auto-enable GPS to track the location, etc. The application uses ‘location’ service of the device through which it gets the geographical coordinates of the user. It then sends these coordinates to the internet, and an API returns the weather information (for those coordinates). The application then displays the temperature. Also, the request is sent every time the app is launched in order to show the latest information. This application also has specification where the theme of app changes according the hours of the day.

# Project members

In this project, all the team members participate to increase the effectiveness of the application and make it useful for the consumer. For this, six team members are participating in a different role that is given in the below table:

|  |  |
| --- | --- |
| Name of the team member | Role |
| Amanpreet | Web Developer |
| Bhupinder , Harpal | Software Developer |
| Gurpreet | Web designer |
| Harpal | Programmer |
| Rupinder , Harpal | Application Tester |
| Satinder | Web designer |

All the participles will provide their own efforts to complete the project in an effective manner as well as to satisfy the customer needs by providing a weather application.

# Agile methodology

For this application project, the agile methodology is used to provide an alternative of project management to the traditional method. This approach is helpful to enable the requirements and solutions to develop buy a combined effort of the development team. This methodology is also beneficial to promote adaptive planning, development, short-term delivery with continuous improvement (Rao et al., 2011).

In this project, the agile methodology is used by the IT team that has increased the effectiveness and features of this android application. In the starting, the team members have defined the requirements of the customer needs where they have identified that mobile phones should have weather theme on the desktop to increase the presentation of the mobile phone. After this, the team has initiated the project with some features. During adding the functionalities, the team members have integrated and tested the features like location, time, changing the color of them on a time basis, the temperature of the current location, etc. After this, the reviews and feedbacks of the clients, users, and other developers have been taken (Abrahamsson et al., 2017). In this, some feedback and reviews were negative, so that the team members have recorded & incorporated the changes and provided the next iteration after the necessary changes. After the good reviews, the product was released into the market which was more effective and includes several featured applications to satisfy the customers.

In this methodology, the application development project is broken into some short duration sprints or iterations. All the iterations have the same duration lasting like a day or week. A simple working model of the project is launched online on play store at the end of every iteration in order to check the feasibility of application (Dehlinger and Dixon, 2011). All the team members held a meeting to resolve the issue are arising in the feasibility of the application among the users. According to Kaleel and Harishankar (2013), the developers get the freedom to make the necessary changes in each iteration for depending on the market response regarding the launched version. In concern to this, it is defied that the changing theme of allocation according to time was not provided in the starting. But this feature was introduced in the successive iterations. However, it can be said that the agile methodology provides freedom or flexibility to the application and web developers to change the features after each iteration (Losada et al., 2012). On the other hand, it can be said that the development of the Android app is a small project because it has a moderate level of variables. The agile methodology is highly suitable for the small projects to make successful after some modifications.

# Conclusion

On the basis of the above study, it can be concluded that this study has focused on the agile methodology of software development. In this study, some IT team members have developed an android app for weather detection, time and location detection as the desktop theme of mobile.

***Weather App***

Working

The weather app is an API based web app that fetches weather information of a location from third party servers on the internet, and displays it in the user interface.

Technologies

The web app is written in JavaScript using the Node.JS framework. Microsoft Visual Studio was used as IDE to write the application.

API

The API has been provided by [openweathermap.org](http://openweathermap.org). A GET query (city name in this case) is sent and the server returns information like latitude, longitude, temperature (minimum/maximum), pressure, wind speed, etc. in a JSON format.

The web app then receives this JSON and parses it to show the information in it’s interface.

Instead of the city name, latitude/longitude can also be passed as a GET request.

Requirements

Internet Connection (to send and receive request and response respectively) and a valid API Key from [openweathermap.org](http://openweathermap.org) (for authentication).















