



## Development of Mobile Application for the Prime Minister's Office (PMO) for Android Platform

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*Abstract- MyGov, an innovative platform to build a partnership between Citizens and Government with the help of technology for growth and development of India, is organizing a contest for creation/ development of a Mobile Application for the Prime Minister's Office (PMO). This App will help PMO to reach citizens of India in a mass because the Smartphone users are growing rapidly and dramatically in India. As per the contest criteria this paper intends to explore the features that should be present in PMO Mobile App.*

*Keywords- Smartphone app development, Mobile app, Android programming, java programming.*

### I. INTRODUCTION

The exponential growth of smartphone users in India will help the use of mobile applications to expand in the country. According to a report released by the Internet and Mobile Association of India (IAMAI) and IMRB International, the number of Mobile Internet Users in India is expected to reach 213 million by June 2015. Today India holds third place among top 25 countries ranked by smartphone users, 2013-2018 by Emarketer, a leading research and analysis firm, and will reach 2 billion smartphone users by 2016. By seeing this growth MyGov is organizing competition for creation/ development of a Mobile Application for the Prime Minister's Office (PMO) with the aim that it will help honorable Prime Minister to reach maximum Indians in India and worldwide. The objective of this App is to use digital platform available in the form of mobile app to run the most efficient and transparent government by aligning people of India to the PM's vision and involving citizens of India at various levels leading to betterment of the country.

This paper gives the idea about the features that should be present in PMO App and also technology which can be used to develop the App.

### II. ANDROID MOBILE PLATFORM

Android is an open source mobile platform provided by Google. This is a software stack for mobile devices which includes an operating system, applications development framework, runtime environment and library. Android operating system is based on Linux kernel allowing taking advantage of the knowledge and features offered by Linux. It supports Java Programming language for the application development. Android uses its own VM called Dalvik, which interprets and executes portable Java-style byte code after transforming it, which is optimized to operate on the mobile platform. Android is the most popular and widely used platform for mobile devices today. It supports large number of consumer devices. The Android architecture has following major components -

**1. Android Application** is a set of native applications are on the top level in the framework. It include many applications such as calendar, messenger, email client etc. . All apps are written using the Java programming language.

**2. Application Framework** Application Framework is the base for developing Applications in Android. Application Framework provides developer all the essential functionality for developing Applications. The main components of Application Framework are -

- Activity Manager
- Window Manager
- Content Providers
- View System
- Notification Manager
- Package Manager
- Telephony Manager
- Resource Manager
- Location Manager

**3. Libraries** Android includes a set of C/C++ libraries used by various components of the Android system which are exposed to developers through the Android application framework. The main core libraries are -

- Media Framework
- Web Kit
- SGL

- OpenGL ES
- Free Type
- SQLite

**4. Android Runtime** It is the instance of the Dalvik virtual machine which runs Android application in its own process. Dalvik allows devices to run multiple VMs efficiently.

**5. Linux Kernel** Android relies on Linux Kernel for core system services such as memory management, process management, network stack, security, and driver model. It also acts as a hardware abstraction layer between the applications and all the hardware.

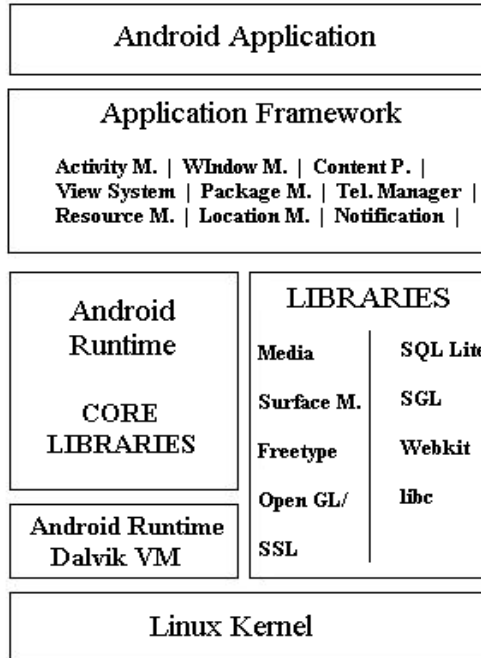


Figure 1: Android Platform Architecture

### III. DEVELOPMENT TOOLS

For developing Android Application following tools are required-

- Android SDK
- ADT Plug-in
- Eclipse

**Android SDK** - The Android SDK provides you the API libraries and developer tools necessary to build, test, and debug apps for Android.

**ADT Plugin** - Android Development Tools (ADT) is a plugin for the Eclipse IDE that is designed to give you a powerful, integrated environment in which to build Android applications.

**Eclipse** - Eclipse is an integrated development environment (IDE). It contains a base workspace and an extensible plug-in system for customizing the environment. Written mostly in Java, Eclipse can be used to develop applications in Java. You can download whole set of tools for various platform from <https://developer.android.com/sdk/index.html>.

### IV. IDEA ON FEATURES OF PMO MOBILE APPLICATION

The PMO Mobile application will be developed with the three main information categories –

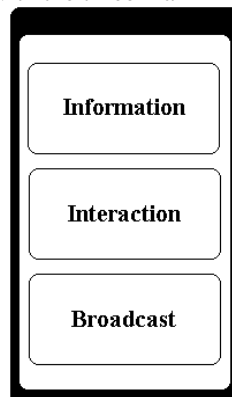


figure 2: Components of App

**Information:** What information would you like to know about the Prime Minister and Prime Minister's Officer readily?

Examples include-

- Profile of the Prime Minister
- Cabinet Ministers and Portfolios

**Interaction:** Interact with the Prime Minister and help the Prime Minister interact with you. Ideas relating to interaction can include:

- Send a message or idea to the Prime Minister
- Pledge support to a campaign e.g. Swacch Bharat Abhiyan cleaning selfie upload
- Donate to the Prime Minister's relief fund

**Broadcast:** Stay updated on the latest with the Prime Minister and the Prime Minister's Office, These ideas involve daily updates that you as a user would like to get. Examples include:

- Weekly address to the Nation on different issues on YouTube through the app
- Speeches made by the Prime Minister can be sent as a push notification to watch live on the app

App should be the interaction between the PM of India with the Citizens of India. So that app must be a social App like Facebook, What's app etc. It contains the social features to interact with the people. By considering the above details following are the features that must be present in App.

The PMO App should have the following base features:

1. Login and Integration with Aadhaar data. This will prevent false ids or impersonations. Aadhaar Login will also help to identify individuals and appropriately direct information at them. For example, a person have residence at Delhi will be identified with his Aadhaar data and thus schemes and information for Delhi will be highlighted for him.
2. The app shall be in several languages across India.
3. For visually-disabled people, their shall be audio instructions and narrations.
4. Audio instructions for people who are not literate.
5. App should consume very less data and be efficiently functional for regions having low internet connectivity.
6. Highly Secured, Unauthorized activity should be monitored, should allow unique access.
7. Terms & conditions should be published for acceptance of membership.
8. Application must contain Voting Options – Likes, Dislikes
9. Features such as Search, Filter, Sharing, Community Circle should also be there.
10. Unbiased, No political party influences and should continue even after the government changes.

The other features of application are described under following sections. These sections may be treated as individual modules or components of the application.

### **Information**

- The profile of PM and other cabinet ministers.
- Basic information about various departments of the government.
- Links to important resources and offices.
- One touch Emergency call Numbers based on location identified by GPS.
- Information about the Mission. E.g Swacch Bharat.
- Information regarding ongoing plans & projects set up by the govt. eg:-budget etc. and also blue prints of the future plans, projects.
- Vision For Five Years and Their Relative Accomplishments
- Information about ongoing bills in the parliament

### **Interaction**

- Requests, Suggestions and Comments to an idea To PMO.
- Ideas be accepted from people and be discussed on every matter and public opinion & polling these ideas will find some conclusion.
- Prime Minister Messages to Ideas and Two way Interaction Portal like Man ki Baat.
- Direct interaction to Campaign like Make in India.
- Donations for PM Relief Fund and/or other Funds.
- Monthly Discussion on a Specific topic.
- Allowing citizens to post their problems and hash-tag them according to the department it falls under e.g. #wildlife.
- Quick posting of RTI.
- Stealth mode for reporting corruption by covertly recording audio or video.

### **Broadcast**

- Weekly address to Nation (in Video/Audio/Text format).
- Do's and Don't by Govt.
- PM Visits to Occasions or Foreign.
- Achievements like growth in GDP etc.
- Live streaming of Lok Sabha, Rajya Sabha and Prime Minister's speeches.
- Announcements about emergencies such as Swine Flu, Disasters, etc.

This app can be portrayed as the voice of our nation and benefit all users by providing direct insight into our overnment. It can pave a way for a more interactive and productive environment and make the nation's dreams real.

### **V. CONCLUSION**

Main objective behind this paper presentation was to provide the idea of the features to develop mobile application for the Prime Minister's Office as this application will help to connect PM with the citizens of India. This paper also provides information about the platform which will be used to develop the application. Simplicity was the major factor in explaining all details about platform & application, which will give a bust to all aspiring android developers to develop the application.

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