PROJECT MANAGEMENT SYSTEM

A PROJECT REPORT

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CERTIFICATE

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Abstract

Recently the mobile application has gain lot of popularity that too in android, android applications are very convenient for automating many works , for managing records/data on cloud for ease of users working or using that data. With the help of project management system all the projects from universities can uploaded on cloud storage using application , this was we can correct the method of managing projects offline with the problem of not having any access to any student or anyone who want to read about it.

Keywords: project management systems; android application; cloud storage; cloud computing; web services; pervasive computing; Flutter; android application

CONTENTS

CHAPTER 1: INTRODUCTION

1.1 Motivation

Whenever we are told to create projects for our final year or for semester mini projects we start searching for projects online with department keyword but after reading 10-20 projects online a thought comes in mind that what projects already have been made by students of our university, or what projects are being created by our seniors. So just like every student I have also been through all this so while facing this I came through the solution to solve this problem.

1.2 Problem Definition

The problem with the currently managed project system is that projects are not available for everyone where everyone can read about it. Now If I have to know about the ongoing projects in university then I have to personally meet the student and ask about it or I have to talk to faculties about it. Projects are being managed in a such a wrong way that no students has ease access to the projects.

1.3 Project Scope

There was a time when the mobile app development industry was only restricted to developing an app individually for iOS and Android, but the tables have turned now, 100%. Today, investing in a mobile app development company that excels in developing a single app that would work on both Android and iPhone, on one codebase, has become the trendy business agenda.
Every guide to Cross platform app development enlists that 'The Trend' became mainstream when Facebook launched and popularized its cross platform app development framework called React Native back in 2015.

Ever since then, businesses – to avail the cost and development benefits that React Native apps development had to offer – had been moving to the framework after getting a staring-at-profit answer to the question Ever since then, businesses – to avail the cost and development benefits that React Native apps development had to offer – had been moving to the framework after getting a staring-at-profit answer to the question 'Is React Native the Right Platform for Your Next App?'. Thus strengthening the React Native vs Native debate even further. And thus, without an ounce of doubt, React Native got popular and the top shots like LinkedIn, Instagram, Walmart, etc moved to the platform.

A popularity that got a dent, a rather impactful one, in March 2018.

Google in the Mobile World Congress announced the beta release of its own cross platform SDK called Flutter. And, in just a matter of a few months, mobile app development using Flutter has already started shoving React Native for its fair share of the limelight, backed by the power that Google has bestowed upon it in the shape of the features like Support for AndroidX, Game Controller, and More.
The present day situation is that Flutter and React Native have gone into an open war of traction and mass adoption and the search query of either of the frameworks comes back with the result showing – 'React Native vs Flutter 2019'.

Let us look back at what the two frameworks stand for to set a base for comparison of being the best native solutions to build apps for both iOS and Android. Coming back to today now.
The present day situation is that Flutter and React Native have gone into an open war of traction and mass adoption and the search query of either of the frameworks comes back with the result showing – 'React Native vs Flutter 2019'.
Let us look back at what the two frameworks stand for to set a base for comparison of being the best native solutions to build apps for both iOS and Android.

Thus in last few year many organizations has started managing their documents , papers online because it is easy to maintain project and easy to retrieve, for example- library management systems, hotel managent systems, hospital record management systems etc.
Thus this way this project has wide scope of being used for users (students)convenient.

1.4 Objectives

The objective of the paper is to present an project management system using android application.

CHAPTER 2 : LITERATURE REVIEW

According to study (1) : author has studied about library methods to search books online. Software is simple, user-friendly, and can be easily integrated with your existing system. The library management system benefits provide online and offline storage, automated backups, and easy upgrades to simplify and enhance the learning process. It has has future scope as To provide mobile application to consumers to increase the market segmentation of the project.

According to study(2) : author studied about online library management to Avoid frustration and tediousness by providing students with 24/7 access to library resources from anywhere, anytime. Library Management Software allows the librarian to maintain all types of books, eBooks, journals, photos, videos, and create events.

According to paper (3) : we have analysed that author is talking about how to use cloud management efficiently Automate, simplify and deploy library database seamlessly to make it easy for your institution to benefit from secure cloud services. Improve efficiency with the automation of various library tasks including acquisition, cataloging, serials management, circulation and reference

On analysing paper (4) we studied that author says the library management system provides mobile access to search the library catalog, schedules, books and resources from anywhere, at any given time via smartphones and tablets. Author write to build ai based management system in future for better performance and scalability.

Paper (5) talk about maximize the performance of libraries with dynamic reports, charts and graphs to review and track the progress for better decision-making. Using application for better understanding of the management.

According to paper(6) author write about the Students can search, write articles, upload photos and videos, manage email, send messages, but also help them to keep up with the librarian and other students via chat, discussion forums, and social media. This way more effectively library can be used using online management system.

In paper (7) author used to term customizable which makes this online system very much better then classic system , it is easy to update data online and publish it to other. this way a better application and a better library can be created.

According to paper (8) author talks about github as an platform for storing data as public form as well as private form , which is a good idea to bring documentation work online for everyone and reduce the paper work . and this way it is easy to maintain and create error free data.

Summary: -

Sr. No.	Method	Advantage	Disadvantage	Future Scope
[1]	Library method It uses a online method to search or find book that is required	Software is simple, user-friendly, and can be easily integrated with your existing system. The library management system benefits provide online and offline storage, automated	Online stored data is predisposed to cyber hacks. Opting for a reliable online system reduces the risk	To provide mobile application to consumers to increase the market segmentation of the project.

		backups, and easy upgrades to simplify and enhance the learning process.		
[2]	Increased Library Engagement	Avoid frustration and tediousness by providing students with 24/7 access to library resources from anywhere, anytime. Library Management Software allows the librarian to maintain all types of books, eBooks, journals, photos, videos, and create events.	Requires high-speed internet connectivity for a web-based system.	In Future they plan to implement Smart management system using Cloud for more storage
[3]	Efficient Cloud Data Management	Automate, simplify and deploy library database seamlessly to make it easy for your institution to benefit from secure cloud services. Improve efficiency with the automation of various library tasks including acquisition, cataloging, serials management, circulation and reference	Take more time for code generation	To deploy this project in a large scale a good business model will be required to gain maximum profit in future.
[4]	Highly Secure, Scalable & Reliable	College libraries benefit from scalable infrastructure, role-based secure access, high performance and reliable to ensure seamless access to library database.	Unlike online systems that use cloud computing, Open source system stocks data on the computer's hard drive. This raises the risk of data loss.	To reduce the overall cost of the project and make the project more efficient by using multiple approaches to deploy a smart library management system.
[5]	Mobile Access	The library management system provides mobile access to	To increase the range of a network a very high-speed Internet connection	In Future they plan to implement AI-based

		search the library catalog, schedules, books and resources from anywhere, at any given time via smartphones and tablets.	is required to transfer data.	computation in edge gateways for optimized management of parking data.
[6]	Dynamic Reports	Maximize the performance of libraries with dynamic reports, charts and graphs to review and track the progress for better decision-making.	It will be very costly	Better Application
[7]	Error-free	The automated library software is user-friendly, powerful and developed for easy entry of data, makes library operations free from errors	It is the better way to manage the system which is updated and error free.	To cover additionally new features.
[8]	Innovation	Students can search, write articles, upload photos and videos, manage email, send messages, but also help them to keep up with the librarian and other students via chat, discussion forums, and social media..	It can be affected by environmental conditions.	Hands free way to use the app.
[9]	Fully Customizable	The library automation system is fully customizable and adaptable to the needs of educational institutions to provide fast, reliable data.	For this cost can be high	Better Application
[10]	Cost-effective	Embracing sophisticated technologies is cost-effective and a viable choice	It can be affected The offline library	Improve Application for user comfort

		for education institutions. Using cloud, mobile and digital libraries eliminates paper-based processes and maintenance overheads, improves productivity, reduces operation costs and saves time..		
[11]	SQL data base s also known as Standard Query Language which is used as a medium for communicating with the database	It is an automatic system that reduces the work burden of the staff/librarians through a single click	Security issue may come up	In future work, we planned to enhance the LMS by integrating the LMS with Local area Network (LAN) which increases the efficiency of the system.
[12]	In these research author applied Agile methodology for the development of this project. This method makes parallel development with the client's goals and customer needs. This project reflects the use of the mobile application and its impacts upon the business and its customers	We can able to change a late requirements. Working software is delivered frequently	In case of some software deliverables, especially the large ones, it is difficult to assess the effort required at the beginning of the software development life cycle.	
[13]	Cloud computing Cloud computing is a general term for anything that involves delivering hosted services over the internet.	elasticity with the perception of unlimited resources, self-service, on-demand, automation	multiple infrastructure choices, databases, or hypervisors, as well as working across private and public clouds	Make service better and make the cloud reach to everybody
[14]	It shows that using one language we can make application for both android and ios. It also shows The execution speed in flutter is faster than other software	By using this we can make cross plat form app for and it is very simple to write	It has massive file size and lack of tools and libraries.	It is probably not going to be the only future, but it will be part of many future developments.

[15]	Special Library Combination of all type of library	Specially libraries should be provided with information resources and services for the planning, research, training, production, development programmes and for realizing the objectives and mission of the organization	Special libraries have experienced cuts in budgets and downsizing of staff due to neglect from parent bodies and government agencies	Improving the image of the special library
[16]	Offloading application for smartphones Mobile cloud computing means that any intelligent terminal equipments such as cell phones and personal computers can obtain services in wireless environment	connectivity and rich set of functionality mobile phones with advanced computing capability	Data Security Connectivity and Performance Issues Dependency and Vendor Lock-In	We are also planning to incorporate security, privacy, and trust related models in the proposed framework.

Table 2.1 – Summary of Literature Review

CHAPTER 3: PROJECT FLOW AND METHODOLOGY

3.1 New management system for managing projects online

Driven by the need to expand management inventories and the prospects of new business models for project management services, Most departments maintain large records management systems (RMS) that contain crime incident data. In most cases, however, these “databases” were not necessarily designed to be analyzed. Rather, these databases were created and are used for case management and general crime counting. As a result, these databases frequently have standard or “canned” queries that facilitate gathering frequently used information or reports; however, these often have limited utility for crime analysis.

The benefit of these databases is that they have a known, stable structure. Queries can be developed and reused repeatedly because the structure associated with this type of database generally does not change frequently. The disadvantages associated with using a records management system, however, can include the reliability and validity of the data, as well as the detail, type, and nature of information, and even access.

Similarly the project management system will work for organizations to avail a platform for managing all the project data.

3.2 Need for firebase/database – Cloud Integration

Firebase evolved from Envolve, a prior startup founded by James Tamplin and Andrew Lee in 2011. Envolve provided developers an API that enables the integration of online chat functionality into their websites. After releasing the chat service, Tamplin and Lee found that it was being used to pass application data that were not chat messages. Developers were using Envolve to sync application data such as game state in real time across their users. Tamplin and Lee decided to separate the chat system and the real-time architecture that powered it.[2] They founded Firebase as a separate company in 2011 and it launched to the public in April 2012.[3]

Firebase's first product was the Firebase Realtime Database, an API that synchronizes application data across iOS, Android, and Web devices, and stores it on Firebase's cloud. The product assists software developers in building real-time, collaborative applications.

In May 2012, a month after the beta launch, Firebase raised $1.1 million in seed funding from venture capitalists Flybridge Capital Partners, Greylock Partners, Founder Collective, and New Enterprise Associates.[4] In June 2013, the company further raised $5.6 million in Series A funding from Union Square Ventures and Flybridge Capital Partners.[5]

In 2014, Firebase launched two products. Firebase Hosting[6] and Firebase Authentication.[7] This positioned the company as a mobile backend as a service.[citation needed]

In October 2014, Firebase was acquired by Google.[8] A year later, in October 2015, Google acquired Divshot, an HTML5 web-hosting platform, to merge it with the Firebase team.[9]

In May 2016, at Google I/O, the company's annual developer conference, Firebase introduced Firebase Analytics and announced that it was expanding its services to become a unified backend-as-a-service (BaaS) platform for mobile developers. Firebase now integrates with various other Google services, including Google Cloud Platform, AdMob, and Google Ads to offer broader products and scale for developers.[10] Google Cloud Messaging, the Google service to send push notifications to Android devices, was superseded by a Firebase product, Firebase Cloud Messaging, which added the functionality to deliver push notifications to both iOS and web devices.

In July 2016, Google announced that it was acquiring the mobile developer platform LaunchKit,[11] which specialized in app developer marketing, and would be folding it into the Firebase Growth Tools team. In January 2017, Google acquired Fabric and Crashlytics from Twitter to add those services to Firebase.[12][13]

In October 2017, Firebase launched Cloud Firestore, a real-time document database as the successor product to the original Firebase Realtime Database

3.3 Implementation and Working

Mobile application: The mobile application acts as a visual connector so that end users can interact with the database. The app is built on the framework of Flutter using dart as the programming language. The purpose of using Apache Cordova is to create applications that can work on both the android and iOS platform with the same source code and can create a Windows admin software. The application is connected to the cloud server with secure channel and 2 step authentications. The purpose of this mobile app is to provide information about the project available on cloud.

Step 1: Install the Project catalog application on your mobile device.

Step 2: With the help of the mobile app search for a projects.

Step 3: Select a particular login as organization platform and public.

Step 4: Browse through the various projects available in the database.

Step 5: Select a particular project.

Step 6: Read about the project , project documentation.

Step 7: Interact using comment section with diff users.

Step 8: Once you have completed reading the project you can also connect with the project leader using messaging feature within the application.

3.4 Flowchart

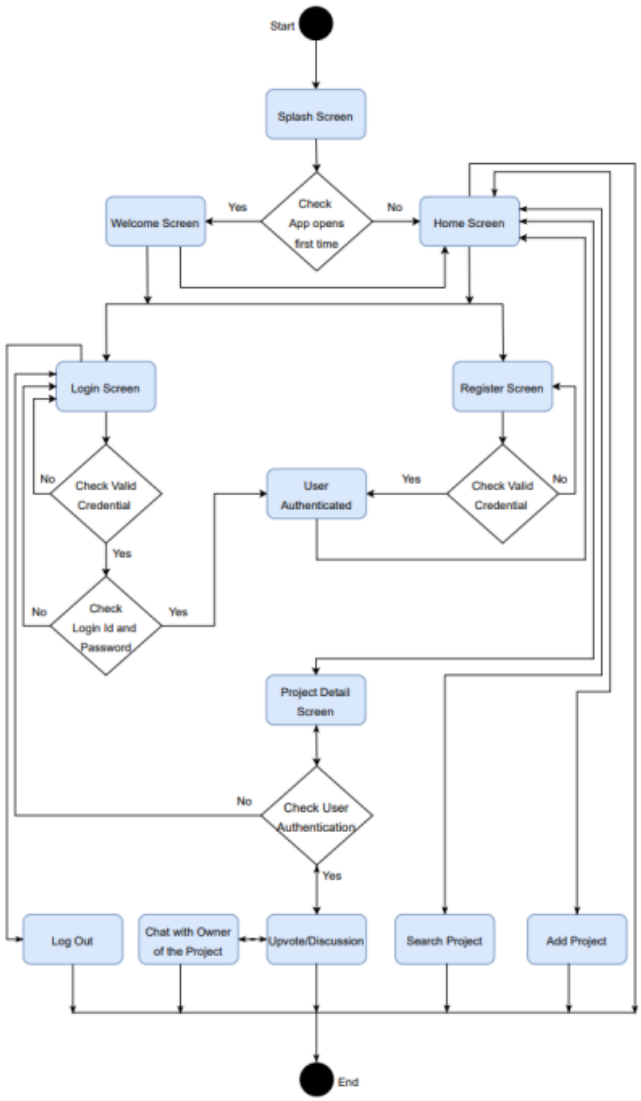
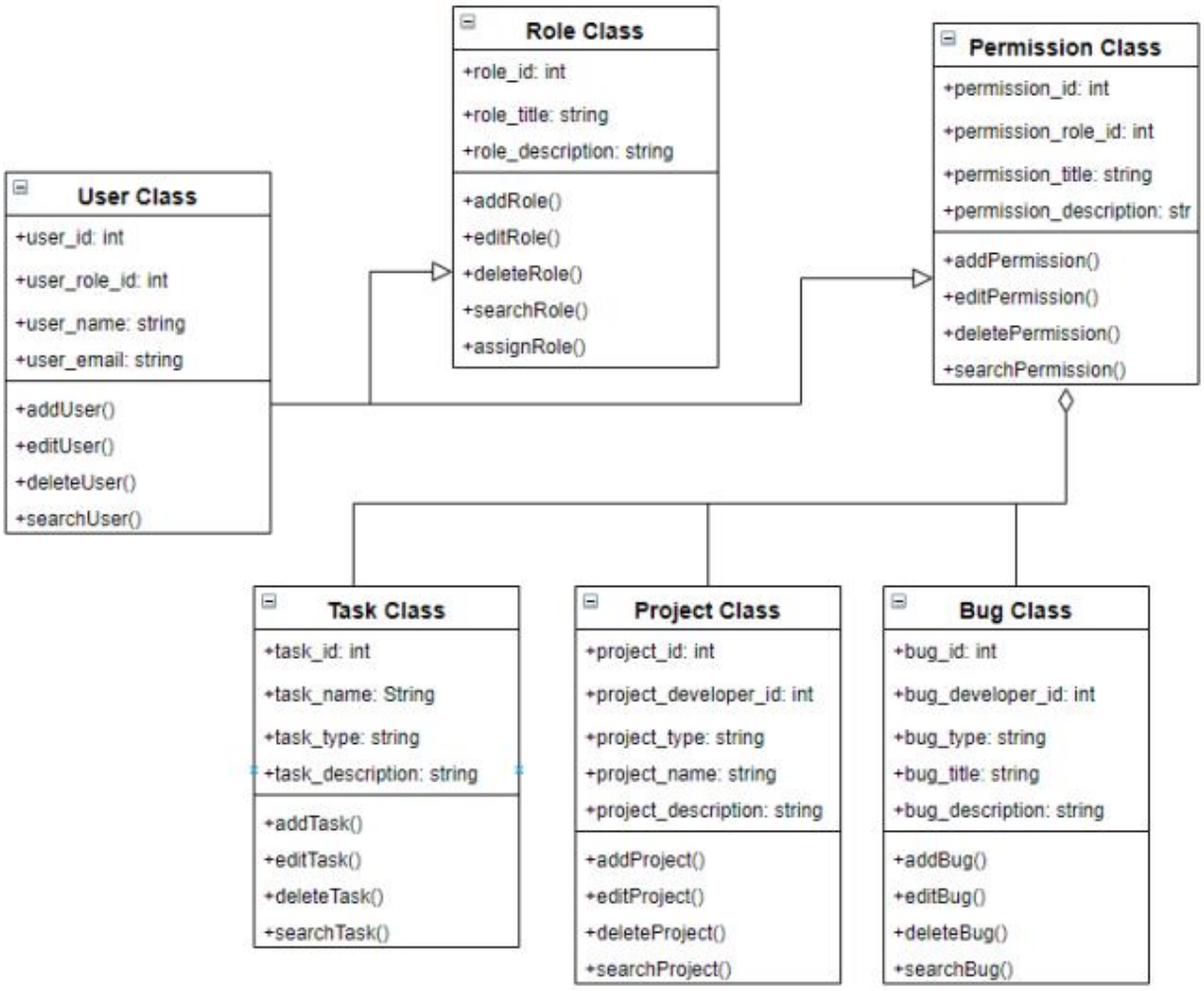


Figure 3.1 – Flowchart of Project Management System (Project Catalog)

3.5 ER Diagram



FUTURE WORKS

Data Size

With more time, our database handling features will improve and with a premium database, our application will be able to provide more edgy service.

Improving the features of application and availability

Currently, our application is working for a publicly used application using google playstore and only available for android users but in future updates it can used as a specific university application for project. And also be available for ios users.

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