

College Application

A Mini project report submitted in partial requirements for Third
Year in Computer Engineering

by

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CERTIFICATE

This is to certify that the Mini project entitled

College Application

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is successfully completed the Mini Project in Third Year (SEM-VI) of Computer Engineering from Mumbai University during the academic year 2018-2019.

Guide

HOD

Examiner 1

Examiner 2

Principal

Abstract

In a world state of affairs, like faculty field, the information is inside the kind of notice, hand manual, verbal message, is being unfold among the students. Currently it's of the essence to not entirely use the predictable varieties of statement, but together new forms like phone technology, for faster and easier communication among the students. The core set up of this project is to implement automaton based collage Management application for advancement of multinational and educational system. Throughout this paper we have a tendency to tend to develop degree application that provided informa-tion like assignments, result and attendi notices and conjointly the department details. Here we have a tendency to tend to together use Authentication, simply the once pass-words (OTP) play a major role for authentication and accustomed provide higher layer of security over static passwords. Students attending are to boot monitored by the ap-plying. We have a tendency to tend to together propose the notification that send noti-fication of recent activity to the students, employees or box whether or not or not they unit of measurement on-line or offline.

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Chapter 1

Introduction

The college application is Eco-friendly to avoid paper-based data management system . This is all in one software which includes record maintains starting from student registration, till student gets passed out of the college. This software will help you with managing all day to day college activities easily. College can send an alert, information via Notifications . These can include results, absent, announcement related information.

The college application is a completely integrated, Android solution for the institution. It is a Software suite that assures smooth administration and management of various academic and non-academic activities.

College Application furnishes an entire management information system and student information system. It is an intellectual platform for Students, Teachers, Parents and Management with special needs and roles.

College Application is used for a maintaining all college data, it is helpful to students and teachers. The college application provides key features to teachers and Students and will maintain the each and every student details like student address and contact no, exams, marks remarks, certificates, and fee details.

1.1 Problem statement

The Bulletin board is the existing system which is officially used in college for all the update related to curriculum notifications. It is intended to reduce the hardship faced by the students and management and has been developed to overrides the problems faced by manual system.

1.2 Scope

The “College Application” is Incremental Development Model. Attendance can be implemented using People Counting and Face Detection. Payment gateway can be integrated for all the intra college transactions.

Chapter 2

Review Of Literature

Literature search found that there is no research had been conducted, or at least published in both local and international sources, on the application of computer in college libraries of 24 Parganas (North). However, Library and Information Science Abstract (LISA) database search indicated that some studies have conducted elsewhere either in India on library automation. In this study carried out of under-graduate college library automation in 24 Pgs(N) in West Bengal and some works has been done on various state and district except this. Chand, Murthy & Prakash (2005) present a report in his article that library automation in North Eastern Region of India. The researcher tried to collect the views of different eminent personalities in the fields of library Science and articles written by various authors in the related fields.

2.1 Present Scenario

The present Scenario has been handicapped by his inability to collect all the related information either in printed form or in electronic form. Under the circumstances the researcher has based his thesis on data collected from the previously mentioned sources. As far as possible, information has been collected from leading papers on Library and Information support to the 'Application of Computer in the College Library and its related fields. In this chapter an attempt has been made to present the views, idea, and opinions of the authors as expressed in their articles or documents. Ranganathan, S. R. (1956). Radio Talk of April 1956. Quoted in Mohamed Taher and Donald G. Davis, Jr., "Librarianship and Library Science in India". Dasgupta, A. (1980). Worked on the topic entitled 'A Notes on resource sharing in libraries' and library database can help to 27 maximum utilized of library resources. He shows the resources are the vital and the cost of the documents are increasing day-by-day and felt that the resource sharing is the done a lot in this regards. Mukherjee, K. N. (1983). Worked on the topics entitled 'History of Settlement in the Sundarban of West Bengal' and describes the regional development. He has shown the marginal area where land formation is continuing, reclamation and settlement development should be the balancing process between man's requirement and nature's accomplishment. The author is acquainted with the problems of reclamation and development of settlement of Sundarban area along with geographical analysis and micro-relief conditions associated with the land formation. Soni, S. and Aggarwal, V. (1989). Worked on the topic entitled 'Computers: systems and programming' and discussed on the aspects of computer functions and languages. They mainly discussed on the basis different courses which requires for mainly students as well as the library professionals. Jha, D.M. (1991). Worked on the topics entitled 'Higher Education in Ancient India' and discussed the education system in ancient India. Discussed the scope of education in India and religious bodies had occupied and influence the education. Discussed the various methods of education and teaching in Indian education systems. Singh, S. and Valli, A. (1991). Worked on the topic entitled 'Challenges for academic librarianship' and discussed performing the maintenance and conservation function for learning community. The library

profession keep pace with the change, reexamination its mission which is relevant in the information era. The library school should relate the education pattern with the present days need. Because higher education has been changing at a rapid pace and past efforts become outdated. The new appraisal of performance needed reevaluated. Chakraborty, B. K. (1993). Worked on the topic 'Information man-power-strategic issues for development' and describes need for planning of information manpower and the present scenario. He also discussed the rapid growth of subjects taught in LIS schools but there is no suitable approach to meet the need. In this situation LIS School have been teaching some subjects to meet the present day requirements. Ra-jgopalan, T.S. (1993). Delivered the lecturer ILA Conference and describes his views on Indian Librarianship. 'Trends and Perspectives in Indian Librarianship', in the Presidential address in Indian Library Association's Conference in 1987. Lathika, K.(1995). Worked on the topic entitled 'UGC Assistance for provision in computer in University and College Li-braries' and discussed scope for granting assistance for setting up computer facilities in higher learning Institutional libraries. Author also describes the utilizations of informa-tion technology of computer and communication to network libraries in the country. Computer facilities established in college and university libraries can be utilized for au-tomating their library systems also. Nair R R. (1995).

2.2 Previous Work

Worked on the topic entitled 'Revitalization of college libraries with computer assistance' in the document Academic library automation and describes the changing in library operation and functions. With the development of science and technology library can enjoy the benefit and provides better services to its users. Roy, S. (1995). Worked on the topic entitle 'INFLIBNET: A discussion' and describes on the function of INFLIBNET.

The author also discussed the area Network covered Research and Development Organizations, Universities, colleges and Information Centres. 29 INFLIBNET worked in the four stage, such as national level, state level, district level and zonal level.

Chapter 3

Description

Today, mobile devices became a vital a neighbourhood of human life. Users access their e mails, social networks, bank accounts, and varied various websites via mobile devices. but still some areas that do not appear to be upgrade with mobile devices. ancient ap-proach used in school where faculty use board to share any information and teacher dic-tates the notes earlier than students and students collectively write notes in their note-book. This technique is time overwhelming for teacher and students. simply just in case any pressing notices by higher management like box or principal take time to attain everyone. currently it's of the required to not entirely use the sure styles of statement, but collectively new forms like phone-phone technology, for faster and easier communi-cation among the students.

3.1 Objective of the Project

The “College Application” is aimed at developing a one stop College Management Sys-tem that is of importance for Institution. The project is an Android based application that can be accessed by the institution management and students. The project aims at providing information to all the levels of management within an organisation. This system can be used as a knowledge/information management system for the college. For a given student/ staff (technical/Non-technical) can access to either upload or download some academic information from the application.

3.2 Proposed System

The project is intended to reduce the hardship faced by the students and management which overrides the problems faced by the existing system. The project Deals with moni-toring the information and transaction of Faculty . Adding , editing and updating of all records is improved which results in proper resource management of data. Manages the information of student and faculty. Provides searching facilities based on various factors such as attendance, scholarships , study material, result and submissions.

3.3 Working of the project

This system will consist of two parts: one college application and one firebase cloud portal. The college application will be used to find and view information while the firebase portal will be used for managing and storing the information about the students, management staff, sending notifications and the system as a whole.

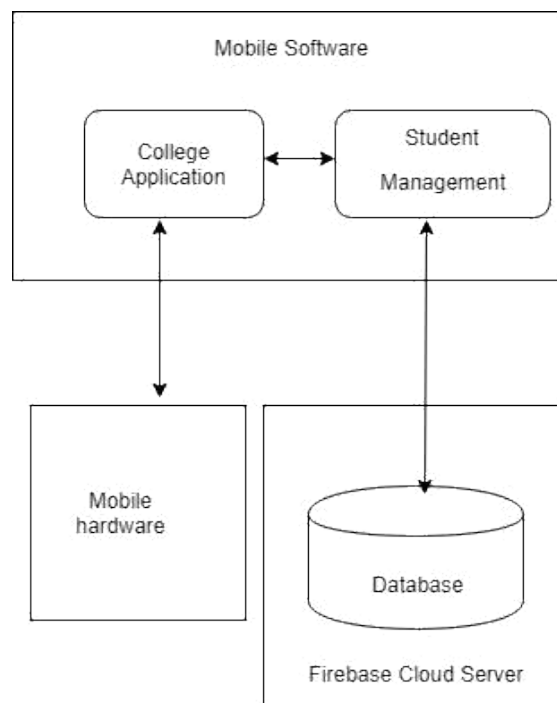


Figure I - Block Diagram

With the "College Application", the students will be able to receive notifications. The result will be entirely based on criteria of student's department inputs. There are several departments criteria and it will be possible for the management/administrator of the system to manage the options for those criteria that have that.

There are two types of users that interact with the system: users of the mobile application and administrators. Each of these two types of users has different use of the system so each of them has their own requirements. The mobile application users are student users and management users which can only use the application to send/receive information. This means that the user has to be able to navigate for information, choose a department from that navigation. In order for the users to get a relevant search result there are multiple criteria the users can specify and all results matches all of those. The administrators also only interact with the web portal. They are managing the overall system so there is no incorrect information within it. The administrator can manage the information for users as the options for both the student application users and the management application users.

The product will be operating in Android environment. Also, it will be compatible with the API 15: Android 4.0.3 (IceCreamSandwich) or higher version. The only requirement to use this product would be the internet connection on android devices.

The Internet connection is a constraint for the application. Since the application fetches data from the database over the Internet, it is crucial that there is an Internet connection for the application to function. Both the firebase portal and the mobile application will be constrained by the capacity

of the database. Since the database is shared between both application it may be forced to queue incoming requests and therefore increase the time it takes to fetch data.

One assumption about the product is that it will always be used on mobile phones that have enough performance. If the phone does not have enough hardware resources available for the application, for example the users might have allocated them with other applications, there may be scenarios where the application does not work as intended or even at all.

A detailed description of all inputs into and outputs from the system. It also gives a description of the hardware, software and communication interfaces.

Chapter 4

Design Approach

A first-time user of the mobile application should see the selection page when he/she opens the application to choose if user is student or management. If the user has not registered, he/she should be able to do that on the log-in page. If the user is not a first-time user, he/she should be able to see the login page and then navigate departments directly when the application is opened. Here the user chooses the type of departments he/she wants to conduct.

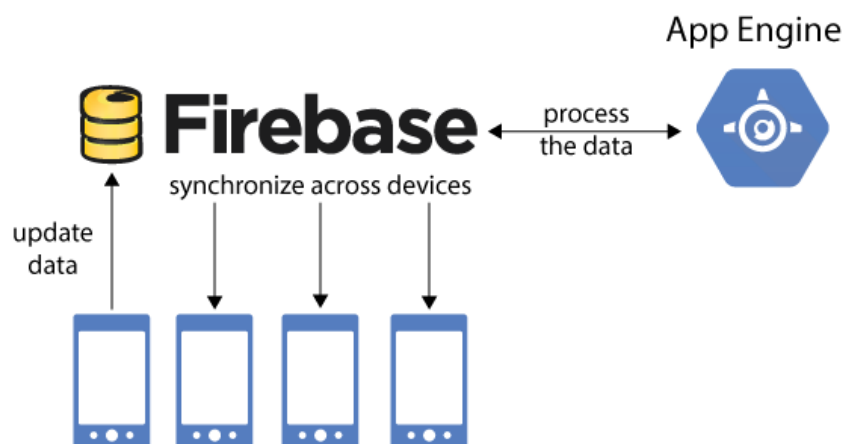
Since neither the mobile application nor the web portal have any designated hardware, it does not have any direct hardware interfaces. The mobile phone and the hardware connection to the database server is managed by the underlying operating system on the mobile phone and the web server.

The Student and Management must be able to login into their respective accounts and have access to the features according to the user rights given to them by the administrator.

last group of the requirements which is non-functional requirements will be explained in detail. Non-functional requirements include performance requirements, safety requirements and security requirements and software quality attributes.

Since this software is going to be mobile application based, it does require a powerful device with 3G/4G internet access. Mobile should have a powerful CPU and high-speed internet access so that it can handle multiple activities of the users at the same time. Performance requirement by the user side is, mobile application should be developed as a lightweight application so that it can work on almost any android device even with slower internet connection.

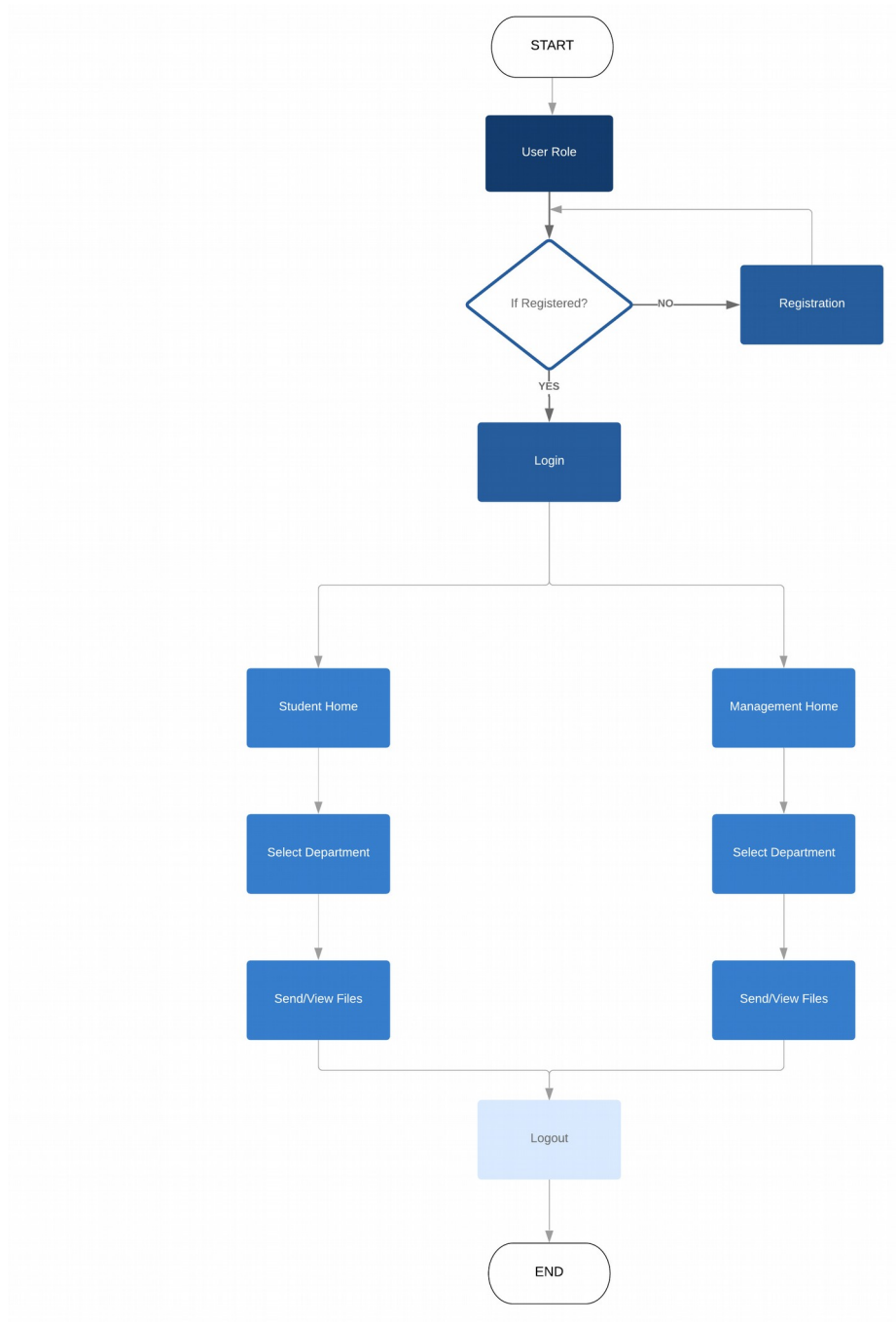
Since this firebase database is hosted on cloud server, all the user data will be kept on the cloud server. Product should be able to protect privacy of user data. application should only be accessed through user own credentials and any other user should not be able to access to the user private data. Since execution will also be done in the cloud, user should be restricted in terms of user rights. Also, rights of the user should be restricted so that user can not harm to system. Since all the data will be transferred on the web, system should also use an encryption and de-cryption mechanism only intended user which is administrator can decode the data and work on the data.



Chapter 5

Implementation

5.1 Flowchart



5.2 Requirements

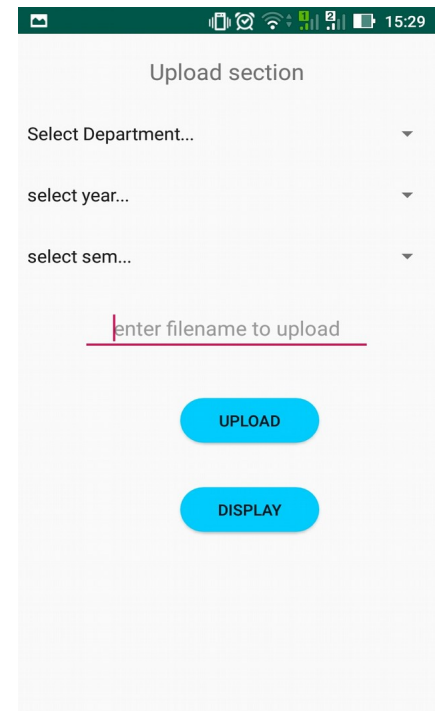
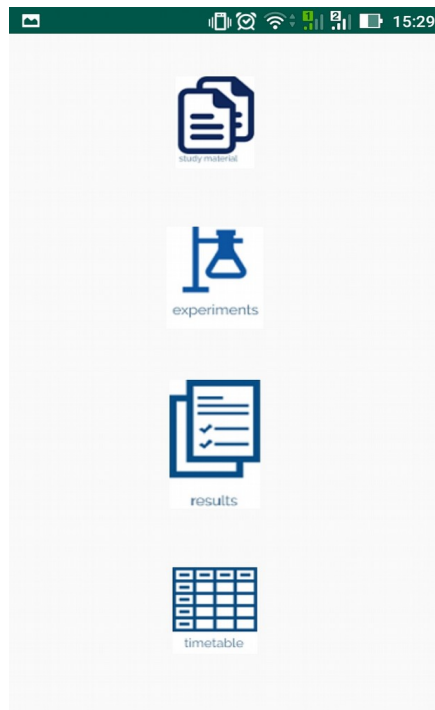
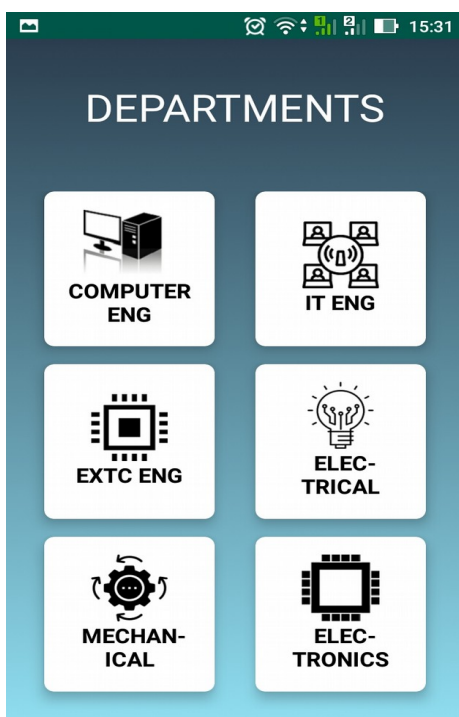
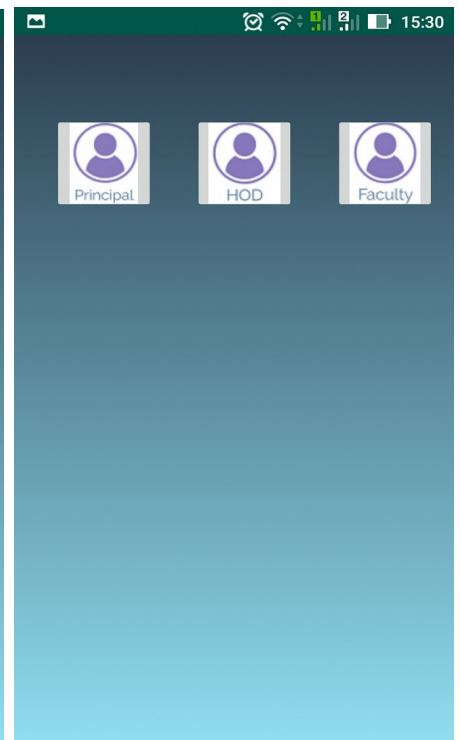
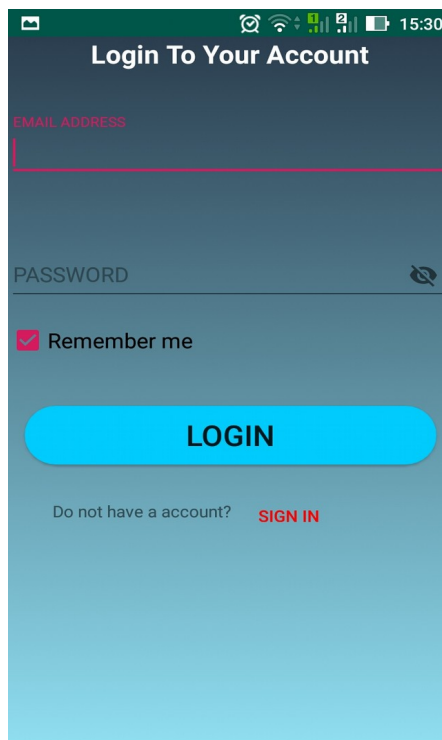
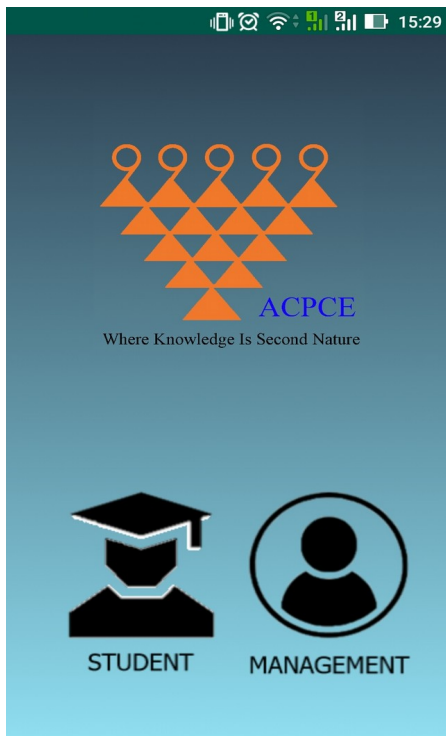
Software Requirement:

- Operating System : Windows 7
- Android Studio Development Kit
- Android Version (Minimum Lollipop)

Hardware Requirement:

- 2 GB RAM minimum, 8 GB RAM recommended; plus 1 GB for the Android Emulator
- 2 GB of available disk space minimum, 4 GB Recommended (500 MB for IDE + 1.5 GB for Android SDK and emulator system image)
- 1280 x 800 minimum screen resolution
- Dual core Processor (Minimum)
- Android mobile phone

5.3 Screenshots



Chapter 6

Future work

This Application can be used by the admin so there is no data leakage and it can handled securely. Delivering such a software to the department it helps to take place task with ease and that's why it reduces time ,money on manpower and efforts. we have event module through which students to get the notices of upcoming events. And students can provide feedback about happened events in the department. Students can select GS,LR,CR in the voting module.

It is a open source application so that others can edit and transform this system application according to their needs can be an future enhancement in project.

Chapter 7

Conclusion

Our system is capable of viewing notification and generating it. Overall we have created a system which puts focus on overcoming the drawbacks faced through existing manual system. This system is based on real time.

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