iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 11 **Issue:** I **Month of publication:** January 2023

DOI: https://doi.org/10.22214/ijraset.2023.48698

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International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 11 Issue I Jan 2023- Available at www.ijraset.com

Collab Pro –A Project Repository

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Abstract: In today's digital world, many college students learn new technology through digital medium and use this technology innovatively to create new projects/outcomes during their college curriculum. Unfortunately, these projects are not used effectively, or they don't get any recognition. Many students dedicatedly learn new technology and use them very innovatively, many of such ideas have caliber of forming a successful startup. Many of thecurrent startups have been have succeeded which were started by youths. We studied the existing collaboration software and have proposed an android platform for university student to showcasetheir projects and get recognition. The application will also help other students to study the uploaded projects and suggest any reviews. The referee will have control to approve the projects uploaded by students to avoid plagiarism. The application will also help the company recruiters to find innovative projects and consider the author for further recruitment processes. The android application wasdeveloped using Java. The data of the application isstored/managed on Google Firebase. Android Studio served as IDE at the development stage. The project is dedicated for providing a dedicatedplatform for students to showcase their projects andget national recognition and provide a platform to recruiters for hiring talented authors.
Keywords: Collaboration software, Android,Collab-pro android app.

I. INTRODUCTION

Innovation is the key to betterment of education and students in the Indian universities/colleges put a lot of efforts on the projects as a part of the academic requirements. If a common knowledge platform
(With a facility for plagiarism) is created to bring all project works taken up at various levels by the students in Technical / Higher Educational Institutes and Universities throughout the country, then it will be a great source of knowledge and will help the student community to take up unique/innovative project works Summary.
Collab Pro is an android based application whichwill help students to share their own project on university level platform. The app will help students to view projects of other students and suggest any reviews and report bugs in the project. The system will allow the student to login using his credentials. After his login user will be allowed to view all the projects uploaded by pervious contributors. The user can also upload their own projects on the application which will go through a verification process by the referee. The referees will be verified teachers/professors from the universities/college from which the student belong. The third category of user will be admins (verified professors from different universities). Referee will verify the project uploaded by students. The Projects uploaded by students will go through approval process. The referee of the App will check the project for piracy issues and approve the project. The companies or their recruiters can also login using their cred and view the projects uploaded by students and sort-list the contributors for recruitment process. The approved project will be visible to students as well asvisitors (Recruiter, Company HR, etc). Recruiterscan view Projects and accordingly sort students for recruiting process. Database firebase and design me xml and Json.
The android-based platform will be build using the Java programming language. The database will be from Google firebase. The objects from the backend that is the firebase will be integrated with the java application. Firebase is a set of hosting services for any type of application. It offers NoSQL and real- time hosting of databases, content, social authentication, and notifications, or services, such as a real-time communication server.

II. LITERATURE REVIEW

N. Bleiel, "Collaborating in GitHub," 2016 IEEE International Professional Communication Conference (IPCC), 2016, pp. 1-3, doi: 10.1109/IPCC.2016.7740497 'Collaborating inGitHub'. GitHub (https://sithub.com/) is a web-basedrepository for software projects and is reportedly the world's largest open-source community, hosting over31 million repositories that include both code and the documentation for that code. Gap Analyzed - GitHubdoesn't have any verification tunnel to verify projects, so the projects can be easily plagiarized.[1]

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Bernstein, Philip A., and Umeshwar Dayal. "An overview of repository technology." VLDB. Vol. 94. 1994. Details about how a repository system should function and the features required in Repository system.[2]
Jones, Richard E., Theo Andrew, and John MacColl. The institutional repository. Elsevier, 2006. 'Digital libraries' can mean many things, but we considerthem to be libraries first and foremost and built upon the enduring principles of information management which have lain at the heart of the practice of librarianship for hundreds of years. Management repository only related to books.[3]
Dabbish, Laura, et al. "Social coding in GitHub: transparency and collaboration in an open software repository." Proceedings of the ACM 2012 conference on computer supported cooperative work.2012. Social applications on the web let users track and follow the activities of many others regardless of location or affiliation. There is a potential for this transparency to radically improve collaboration and learning in complex knowledge-based activities.[4]

III. PROBLEM STATEMENT

Innovation is the key to betterment of education and students in the Indian universities/colleges put a lotof efforts on the projects as a part of the academic requirements. If a common knowledge platform (with a facility for plagiarism) is created to bring all project works taken up at various levels by the students in Technical / Higher Educational Institutes and Universities throughout the country , then it will be a great source of knowledge and also will help thestudent community to take up unique/innovative project works [19] Summary: An integrated platform should be developed where in all the universities/Colleges provide information about the projects done by the students. The information on this platform will help in the peer learning and this will also help in cross functional research between various universities/colleges. [20]

IV. PROPOSED SYSTEM

The proposed system will be Android applicationdeveloped in Java using Firebase database at the back end. The system will allow the student to login using his credentials. After his login user will be allowed to view all the projects uploaded by pervious contributors. The user can also upload their own projects on the application which will go through a verification process by the admins. The companies ortheir recruiters can also login using their cred and view the projects uploaded by students and sort-list the contributors for recruitment process. The third category of user will be admins (verified professors from different universities). Admins will verify the project uploaded by students.

V. DATA FLOW DIAGRAM

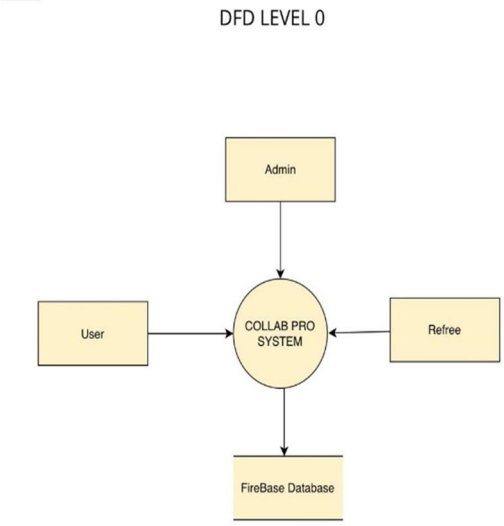


Fig -1: Flow Diagram level 0

The above DFD (Data flow diagram) is version 0 where we simply made 4 panel and their activities like at first user will request for the project verification, then the refree will provide if the project is valid or not (plagiarism) and then only it will be uploaded on the system, admin can manage overall system. The database is directly connected to Google Firebase Database in Realtime.

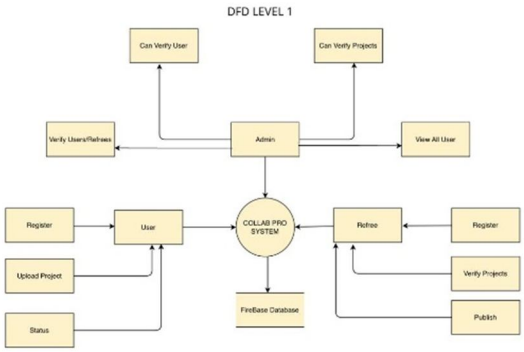
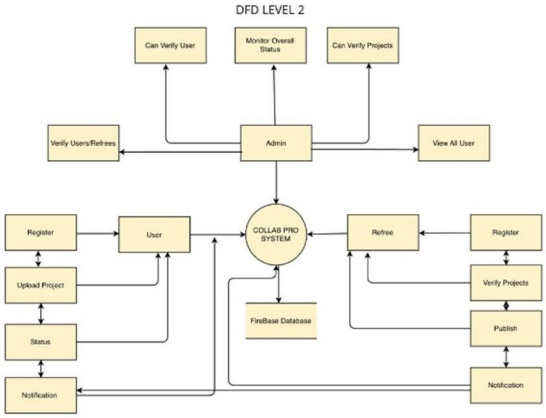


Fig -2: Flow Diagram level 1

In version 1 of DFD (Data flow diagram), we simplified the roles of each entity from the system, admin is responsible to maintain the whole flow of the system in a structured way, monitoring all databases and maintain all refree and their activities, the refree is responsible to maintain all allocated projects. Any user who willing to upload the project, have to register with an application, and then the user can request project for verification to refree.



In version 2 of DFD (Data flow diagram), we detailed structured the flow of our system from start to end, first user will register with the application and then they will upload the project, the project will not upload directly it will first notify the refree the refree will verify(plagiarism) and approve the project then it will show in the user home screen, also the user will be notify that your project is uploaded successfully. The Home screen have various projects according to the domain. It will also show trending projects on home screen. The Refree can manage all the projects they have the rights to suspend the project. To edit the projects, The admin manages overall system. Manages the user (Block or temporary suspend users), can rectify the projects, rectify publisher, can manage the refree (Block or temporary suspend Refree). All the Data are managed properly in Firebase Database in Realtime.

VI. CONCLUSION

In conclusion we developed an Android application which will help students to get national recognition for their college/university level projects. The junior students can refer the projects uploaded by other peers which will help them to understand the projects working and the technologies used the building the project. The authors can get reviews and rating from the peers as well as company recruiters. Thecompany recruiters will also get chance to hiringtalented Students and their innovative ideas as start- ups. The referee verification will help for checking plagiarism. The most important feature of our application is avoiding plagiarism activities. The repository will include only brief description of the projects.

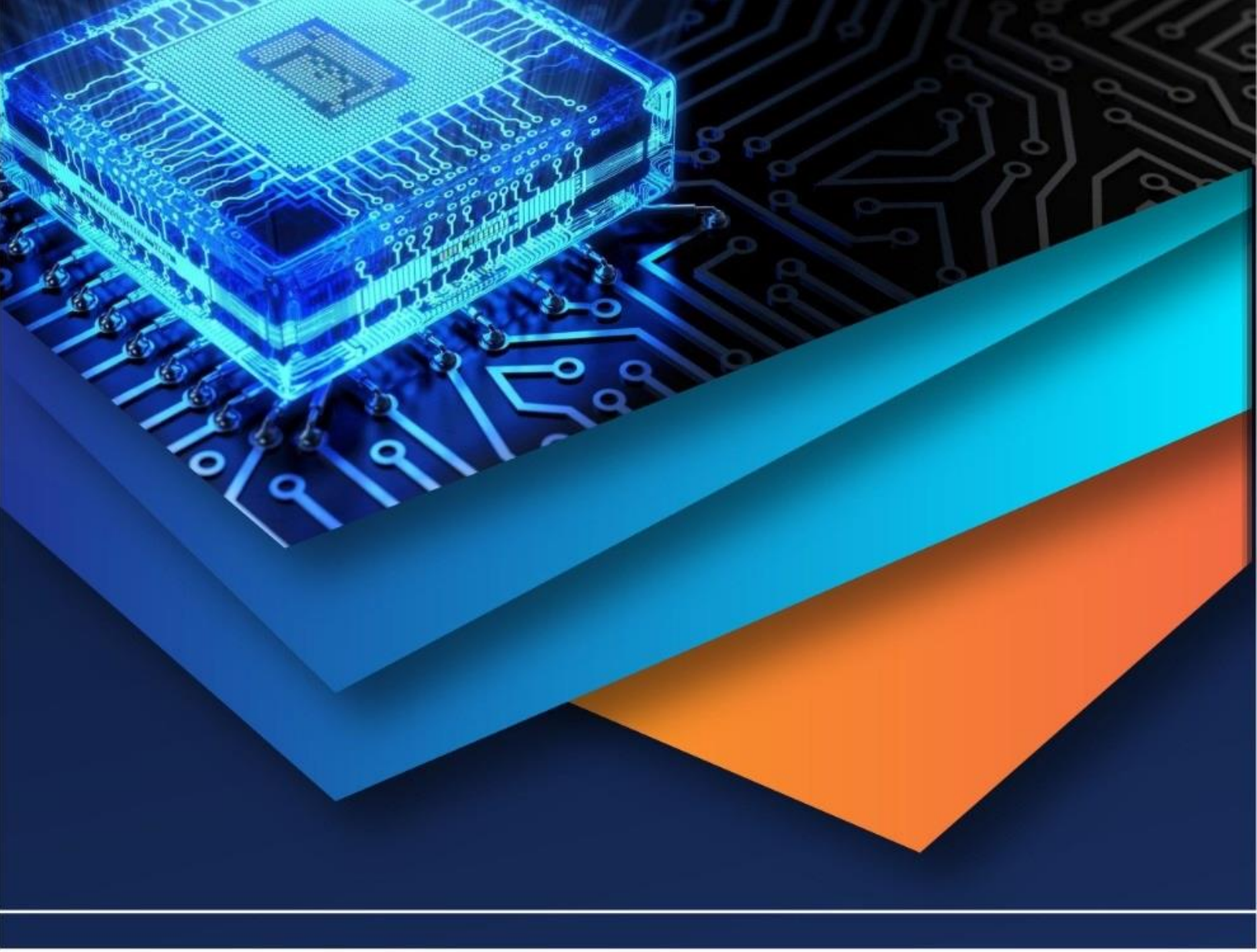
VII. FUTURE SCOPE

In future the android-based application can be featured on Web Platform for user convenience. The projects which are added by the authors can have a review system, where the peer as well as domain specialist can add their reviews and ratings. The reviews section will help the author to identify and remove bugs (if present).

The process of plagiarism check can also be automated using various algorithms, which make the process smooth without referees' intervention. In future the application can be made open to all developers (currently restricted to university students) nation or worldwide which will help any developer to showcase their domain wise projects and indirectly their skills.

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