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Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

Kanban Work Manager

Group Number-9

REVIEW REPORT

Submitted by

Group Member1 Vaibhav Chopra (19BCE0932)

Group Member2 Deepesh Suranjandass (19BCE2210)

Group Member3 Ishita Gautam (18BCE0840)

Group Member3 Aditya Jaiswal (18BCE0812)

Prepared For

HUMAN COMPUTER INTERACTION (CSE4015)

PROJECT COMPONENT

Submitted To

Dr. JOSHVA DEVADAS T

Associate Professor Grade 2

School of Computer Science and Engineering

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Project Title

Kanban Work Manager

Abstract

Kanban is a Japanese originated word that stands for “visual card”. The word originated in the Toyota Manufacturing Facility. It was used to control the flow of production in the facility. A Kanban Board is a project management tool that is used to help and monitor workflow management through various tools like being able to visualize work at various stages, and also acting as a platform to communicate progress, status and issues.

1. Introduction

1.1 Background

Our Project Kanban Work Manager was ideated from the thought that there is no thorough and efficient product management system that captures the real essence of a

Kanban Work Principle, thus we have kept our product simple and suffice as it concentrates on the essential features like being able to add, delete, read and update task lists, and many product management systems do not have the facility of real-time cross board synchronization, which we felt is essential.

1.2 Objective

The Main Objective of our Kanban Work Manager is to forge an integrated product management system for users where all of the required needs and information are met through easy-to-use and intuitive data aggregation, where requests are automatically scaled and fulfilled according to the population of users on the system, and their cards are easily generated and archived. We also look to have real time access where updating to any part of the website for any particular product, should mean the required change should happen in the other parts of the website.

1.3 Motivation

The Motivation for the Kanban Work Manager is that we want to ensure a computerized product management system that replaces the current manual product development systems used to monitor the status and progress of a product in-development, and ensures that the product management task is eased and its performance, security, efficiency and effectiveness is also catered to. We are looking to create and design a system that has appropriate methodology, strategy, easy-to-understand and easy-to-use, thus giving the people in charge of maintaining the cards for a particular product, an opportunity to look at better results and reduce unnecessary overhead costs.

1.4 Acknowledgement

We would firstly like to thank our college Vellore Institute of Technology, and

our Human Computer Interaction Teacher- Dr. Joshva Devadas T for providing us this esteemed opportunity and guidance to know, develop and hone our existing knowledge of HCI into a efficient project. This further pushed us to research more about our topic and gain further knowledge. Lastly, we would like to thank our friends and family, who helped us in striving hard to finish this project.

2. Project Resources Requirements

2.1 Software Requirements

1.HTML

2.CSS

3.JavaScript

4.Firebase

5.WebPack

6.Figma

7.NodeJS

8.NPM

9.Sass

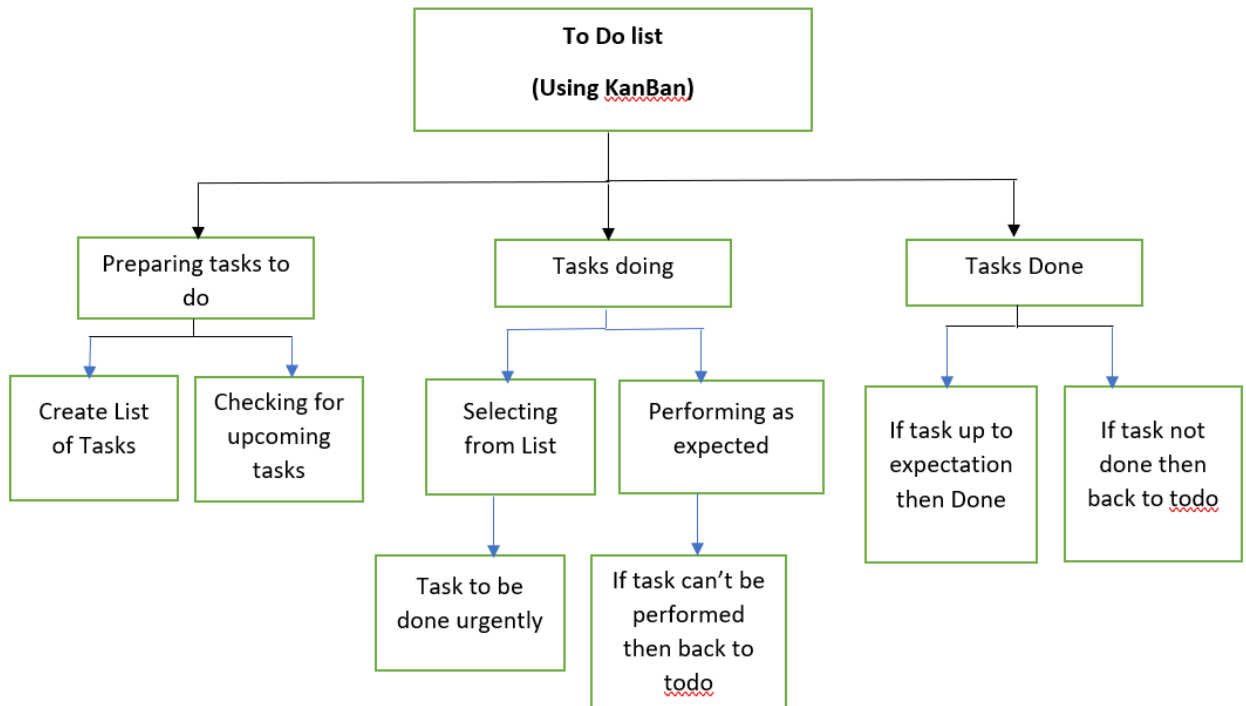
3. Task Flow

- 3.1 Identifying the perfect features required by users for a product management system and designing a wireframe using Figma.
- 3.2 Discussing the Tech Stack Involved and building the basic structure of the website using HTML, CSS, JavaScript and Webpack.
- 3.3 Incorporating crucial feature like Real-Time Access to the database by using technologies like Firebase.
- 3.4 Discussing about Scalability and Creating A Highly User-Friendly and Effective Interface through amazing features like Emoji-UUID.

4. Task Analysis

4.1 Hierarchical Task Analysis

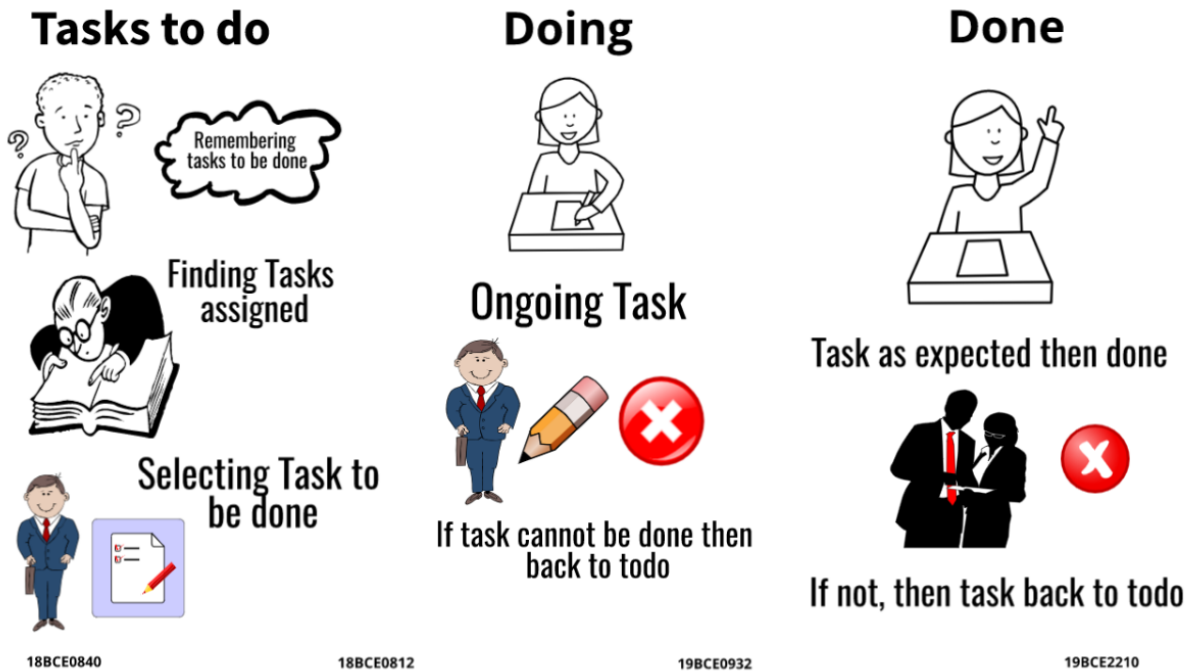
After understanding our user, it was important to create a thorough analysis of the aspects that the user requires in the form of a diagram, thus making it easier to understand the features that will be present on our project. We have created a visual depiction of the features the project has, in the form of a Hierarchical Task Analysis.



4.2 Story Boarding

A Kanban Board is all about visually simplifying a project or task. A practice that is generally followed in creating any project is Story Boarding. Through our Story Board, we have depicted the interaction the user will have with our platform, thus allowing proper understanding between the user and the platform. We have looked at three main

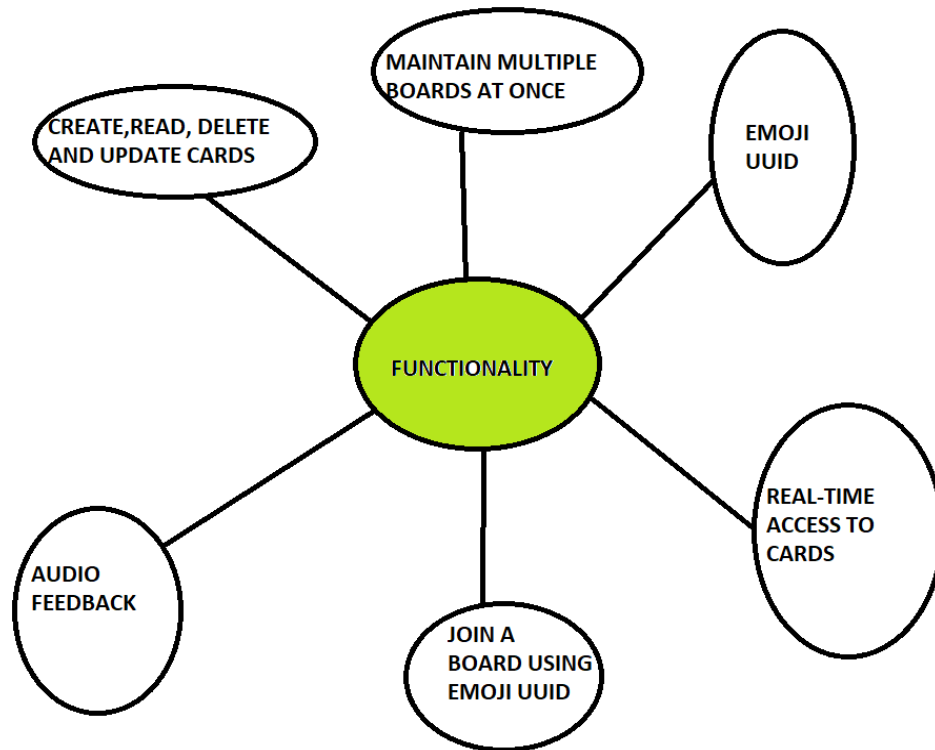
categories of “Task Status”-Tasks to Do, Doing and Done. We have further explained each category by listing the different scenarios and their outcomes.



5. Features Implemented

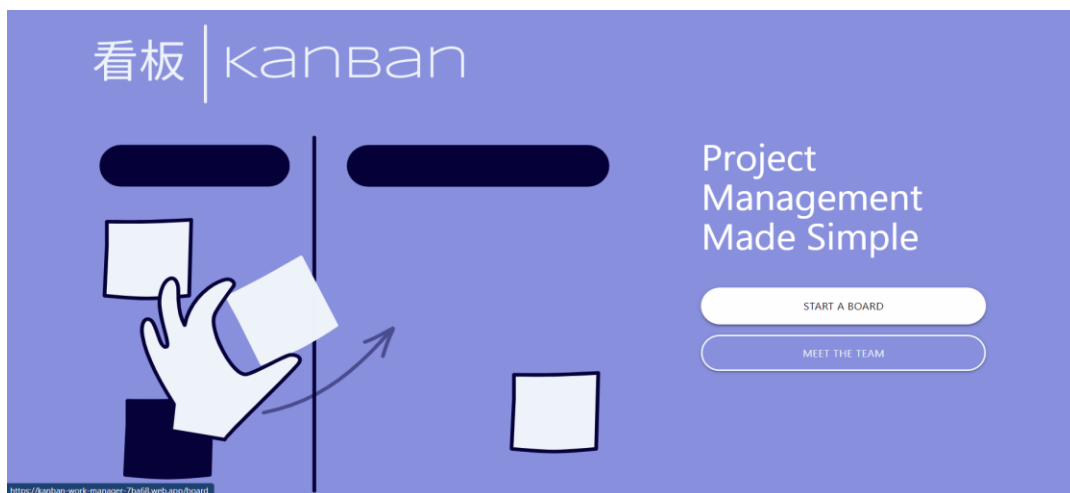
- 5.1 We have implemented the full-stack version of our Kanban Work Manager.
- 5.2 We are allowing users to create, read, update and delete separate boards for each task, as well as multiple boards within each task.
- 5.3 We have focused on including Schneiderman’s 8 Golden Rules for our Design; like Strive For Consistency, Design Audio Dialog to yield completion of tasks, Permit Easy Reversal of Actions, etc..

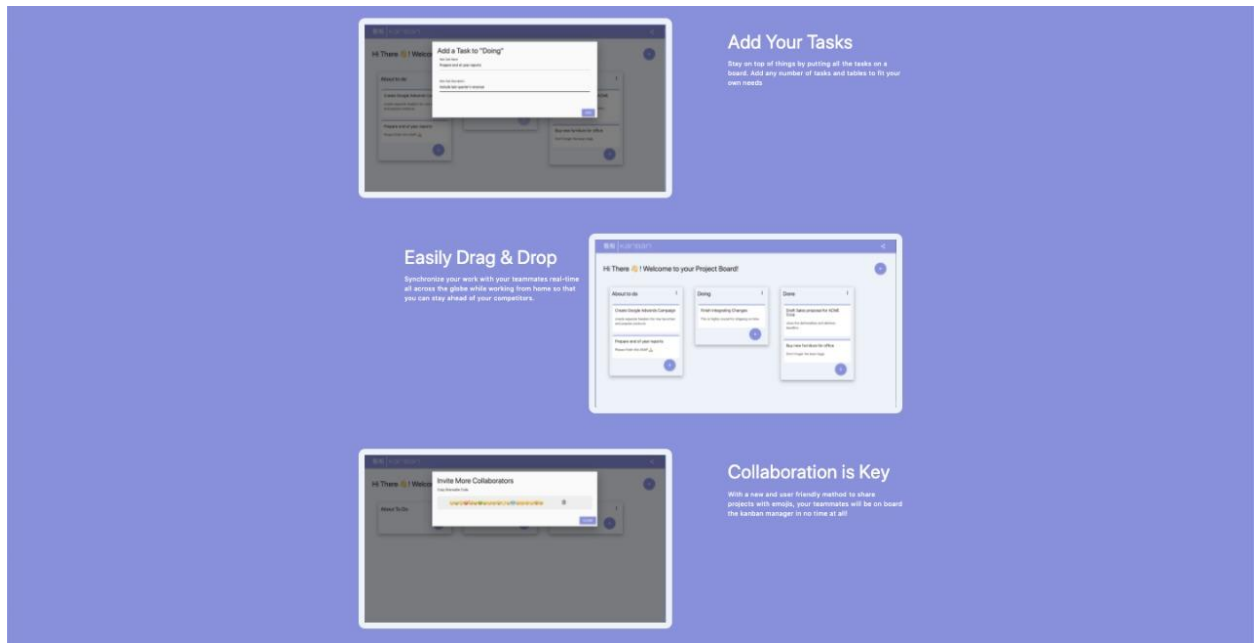
- 5.4 We have ensured that one of the main features of the website is the ease at which the individual task boards can be accessed.
- 5.5 We have incorporated Real-Time Data Analysis to ensure that there is a correct depiction of data for a user's Kanban Cards.
- 5.6 We have also allowed users to visualize work at an easier level and communicate their progress, status and issues.
- 5.7 We have also added a special feature to identify each product and all its cards. Its Called EMOJI UUID, wherein each product is identified by a unique string of Emoji's. This is very user friendly, and adds a fun factor to the project.
- 5.8 We have also launched this unique feature on NPM, which is a global store for various Node Packages.
- 5.9 We have improved our audio feedback a user gets on performing a command, such that the prompt is clear and understandable, keeping in mind the principles of HCI.



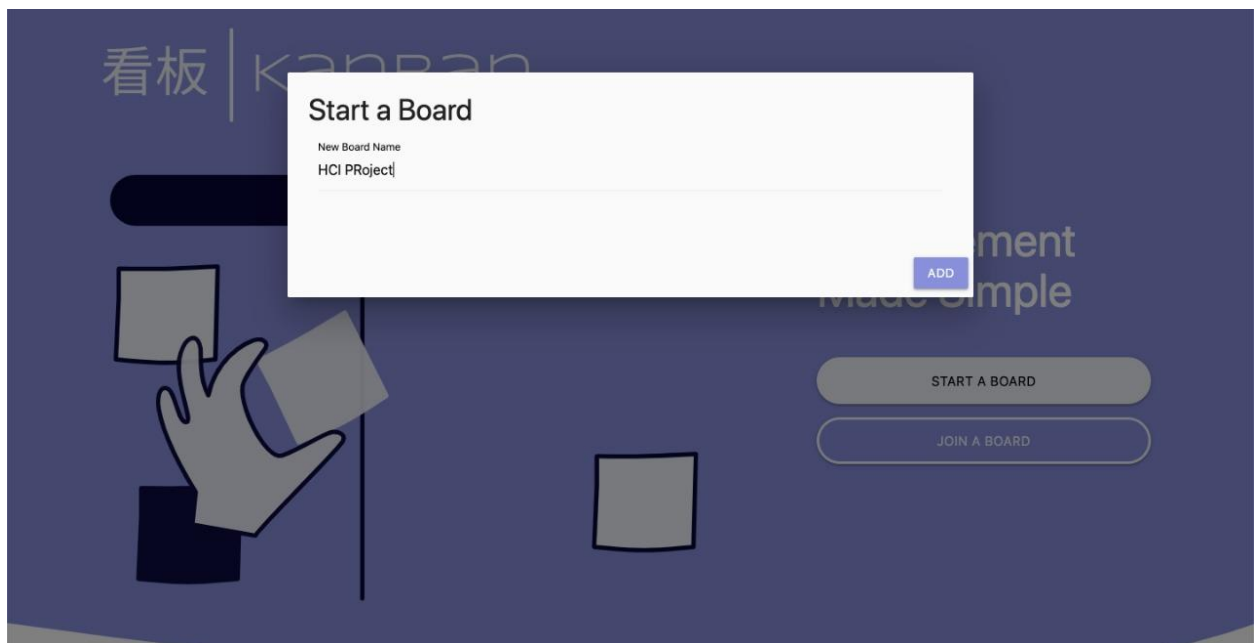
6. Snapshots and Links to Website and Code

6.1 Landing Page

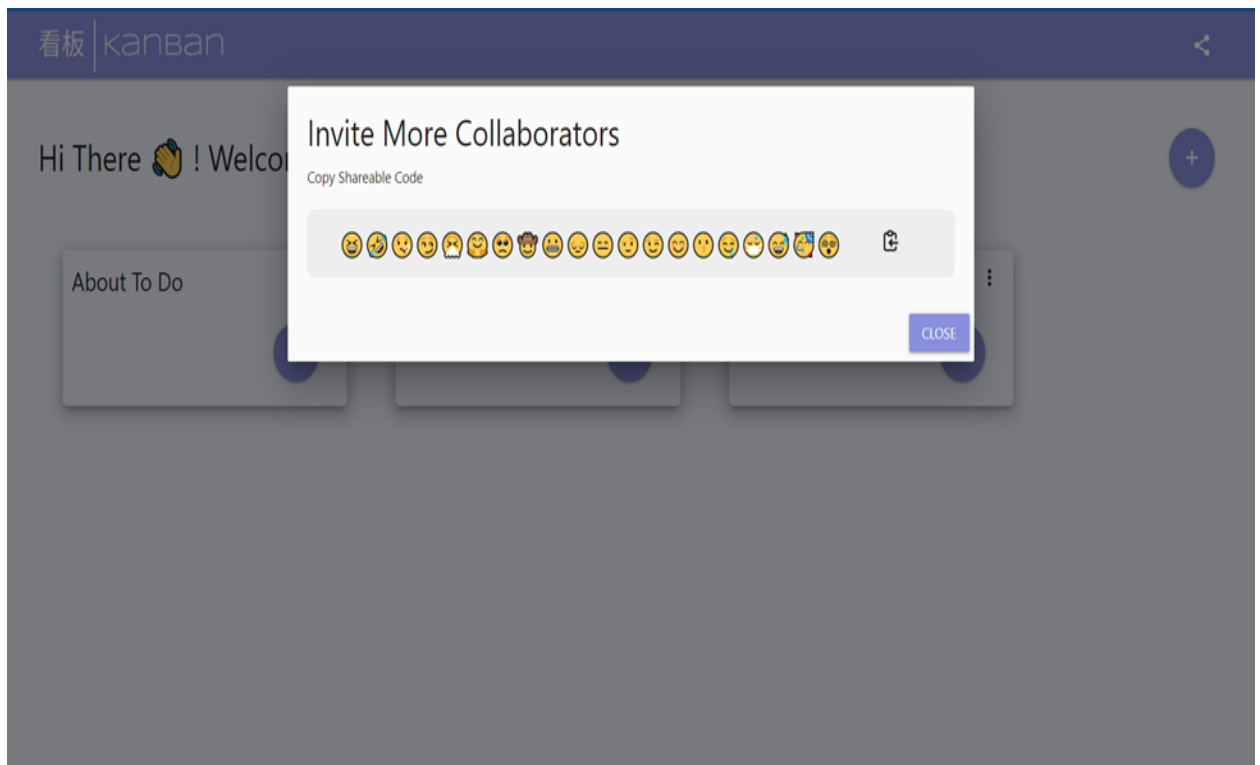




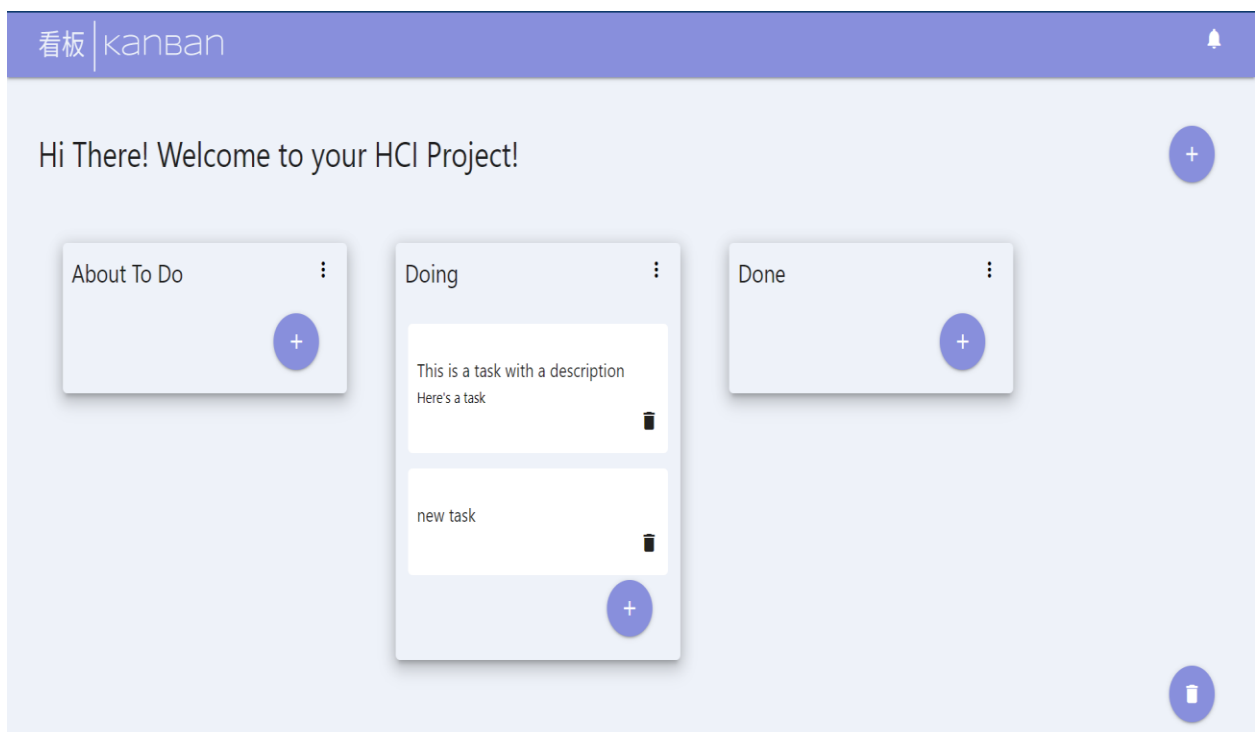
6.2 Start A Board



6.3 Join A Board



6.4 Dashboard



6.5 About Us

A Project By



Deepesh



Ishita



Aditya



Vaibhav

Kanban Application: <https://kanban-work-manager-7ba68.web.app/>

Source Code of the Website: <https://github.com/sudo-vaibhav/kanban-ui>

7. Conclusion and Future Work

7.1 Conclusion

We would like to conclude this project by saying that we have successfully implemented it and achieved our objective. The Kanban Work Manager we have made caters to the right users and provides an effective use. Through this process we also learnt the usage of various technologies like HTML, CSS, JS, Firebase, Node, Webpack, and got to put our existing knowledge of HCI and its Various Principles to work. We would like to thank Dr. Joshva Devadas T for providing us this esteemed opportunity to showcase our skills.

7.2 Future Work

The Future Scope of this Project includes the further enhancements we can make in order to make it more feasible. Firstly, we would like to ensure further protection maybe via rigorous authentication method maybe via OTP or Email Verification. Secondly, We would also probably like to integrate our Kanban Work Manager with secure cloud services to ensure proper backup of information maybe for large scale products. Lastly, we will aim for multilingual support in order to serve a larger audience and increase user friendliness.

8. Plagiarism Report

PLAGIARISM SCAN REPORT

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Words: **1349**

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Plagiarized Sentences

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Unique Sentences

Content Checked for Plagiarism

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- [2] Lehtola, L, Kauppinen, M., Kujala, S., 2005. Linking Business Views to Engineering Needs: Long-Term Product Planning by Roadmap At: International Requirements Engineering Conference (RE 05), Procedures. IEEE Computer Society Press, Los Alamitos, USA, May, pages 439-446.
- [3] Royce, W., 1999. Software Project Management. Addison Wesley, you read .
communication "In Human Behavior, Volume 23 Issue 4, July, 2007 Pages 1881-1893.
- [4] IEEE Std 1220-2005, IEEE Standard Application and Management Systems Engineering Program IEEE New York, NY, USA. ISO / IEC 12207: 1997, Software Life Cycle Procedures. International Standardization Organization, 1997.

Matched Sources :

(PDF) A Review Paper on Human Computer Interaction

research experiments in human computer interaction involves the young age group of people that are educated and technically knowledgeable. language, interaction and communication interaction" in human behaviour, volume 23 issue 4, july, 2007 pages 1881-1893.

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HCI PLAGIARISM REPORT LINK:

<https://drive.google.com/file/d/1g8fpAY0Qjx75BV-nWIYs67482k4uIDuq/view?usp=sharing>

References

- [1] Chrissis, M.B., Konrad, M., Shrum, S., 2003. CMMI. Guidelines for Integration Process and Product Development. Addison-Wesley, Boston, USA.

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