Basecamp (Kanban Board)

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ABSTRACT: The Kanban board is a tool for workflow visualization, designed to help you bring clarity to your work process and enhance efficiency by limiting work in progress. Kanban is a tool developed to increase productivity and eliminate waste from their large-scale manufacturing processes. Recently, the system has been used as a tool of choice in Lean software development. New variations of the system are becoming increasingly popular in the industry, but ever since there has been no comprehensive and critical evaluation of the Kanban system applied to large-scale software projects. Basecamp(kanban board) is a tool developed to increase productivity and eliminate waste from their large-scale Recently, the system has been used as a tool of choice in Lean software development. New variations of the system are becoming increasingly popular in the industry, but ever since there has been no comprehensive and critical evaluation of the Kanban system applied to large-scale software projects. This report describes the Kanban system, its origins and recent adaptations to the area of software engineering. It also discusses the philosopy Kanban system is a very cost efficient process if applied in proper manner.

INTRODUCTION:

Basecamp(kanban board) is a tool developed to increase productivity and eliminate waste from their large-scale Recently, the system has been used as a tool of choice in Lean software development. New variations of the system are becoming increasingly popular in the industry, but ever since there has been no comprehensive and critical evaluation of the Kanban system applied to large-scale software projects. This report describes the Kanban system, its origins and recent adaptations to the area of software engineering. It also discusses the philosopy Kanban system is a very cost efficient process if applied in proper manner. Principles of kanban systemVisualize work ,Limit work in process, focus on flow ,continuous improvement Key words: Kanban System, Just in Time, Lean Manufacturing, Total Quality Control.One of the main advantages of Kanban is its flexible and non-prescriptive nature. It provides the team with a small set of guidelines for managing any project. After the primary rules have been applied the project manager needs to make decisions based on his team's size and performance The manager can make changes and modify certain attributes of the system.This apparent advantage of Kanban can become an issue for inexperienced users who have never used the method before.

Therefore, the purpose of this paper is to evaluate this new methodology in the context of small software projects and make recommendations about the best practices which could be applied to improve their current projects.In order to do that, exhaustive testing and evaluation of the method in question will be conducted. This project will address issues such as: the optimum size of the team, their experience and roles, projects size, use of time and resources.The main aim and originality of this project comes from the investigation of small projects whose scope is outlined in the next section.

LITRATURE SURVEY:

Mahgol Amin.,(2014 Malardalen University).

The aim of this paper was the focus on kanban as an engine software development methodology.The board has to upto date beacause an outdated kanban board may causes issues in the process of development.

Sanjay Pandit Patil,Dr.Jitesh.R.Neve(2018). International conference on advanced communication and computing technology. Visualize the workflow eliminate interruptions manage flow make.The board can becomes to complicated for the kanban team

Taiichi Ohno(1940 By a Japanese Engineer). Agile methodology process policies explicit improve collaboratively.The kanban system requires planned weakly and monthly production schedules coupled with day-to-day flexibility.

METHODOLOGY:

Kanban Cards – This is the visual representation of tasks. Each card contains information about the task and its status, such as deadline, assignee, description, etc.

Kanban Columns – Each column on the board represents a different stage of yourworkflow. The cards go through the workflow until their full completion.

Work-in-Progress Limits – They restrict the maximum amount of tasks in the different stages of the workflow. Limiting WIP allows you to finish work items faster by helping your team focus only on current tasks.

Kanban Swimlanes – These are horizontal lanes you can use to separate different activities, teams, classes of service, and more.

Commitment Point – A commitment marks a point in the work process where a work item is ready to be pulled into the system.

Delivery Point – The point in the workflow where work items are considered finished.

Problem Definition:

The kanban board is a perfect tool for visualizing potential problems in your process. The logic is simple: if you see a columns in which tasks arrive faster than they leave Work will start to pile up,and the problem will become visible to the whole team. This happens because any fields that are hidden as per hiding or showing a field in a issue type are not considered for search results and in this Example- the fix version is not empty nor unreleased as it doesn't for this project /issue .

Feature Extraction:

Healthcare project managers deal with various projects within a healthcare organization.
Educational projects require constant communication between professors, teachers, students, and other involved participants.

Techniques to be used

1.Visualize work
2.Limit work-in process
3.Focus on Flow
4.Continuous improvement

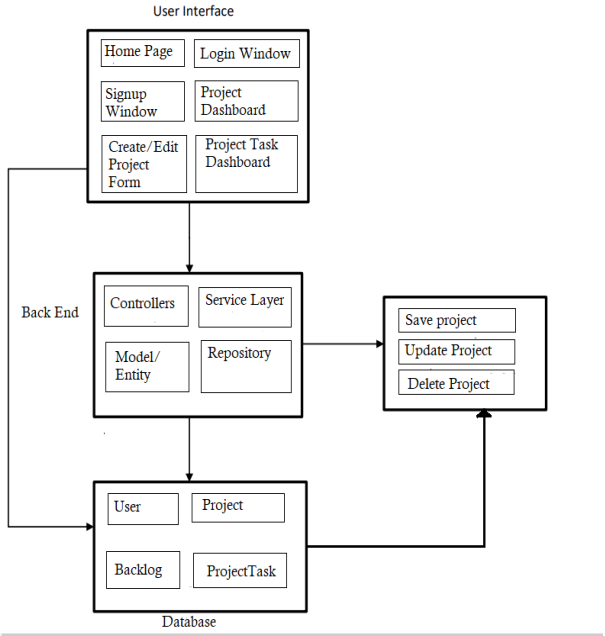


Fig1: How System Works

One of the main advantages of Kanban is its flexible and non-prescriptive nature. It provides the team with a small set of guidelines for managing any project.

• After the primary rules have been applied the project manager needs to make decisions based on his team's size and performance The manager can make changes and modify certain attributes of the system.
• This apparent advantage of Kanban can become an issue for in experienced users who have never used the method before.
• Therefore, the purpose of this paper is to evaluate this new methodology in the context of small software projects and make recommendations about the best practices which could be applied to improve their current projects.
• In order to do that, exhaustive testing and evaluation of the method in question will be conducted.
• the simplest kanban board has three columns:
1. To do
2. Doing(in process)
3. Done
• Before learning about Kanban System, there must be some
• Knowledge about Just in Time and Total Quality Control.
• Kanban is a japnese word which means signboard,when the word kanban is used in production,it refers to what,when and how to produce.

Proposed Experiment:

Work Kanban boards can be useful if you're collaborating with your coworkers. Each member of the team can see which parts of the project they can improve, which helps them enhance the quality of their work. They can also see how many tasks they have left to finish, which avoids duplicating the parts of the assignment and allows employees to manage their time effectively.

RESULT:

Implementation tools & module developed

1) React JS:-

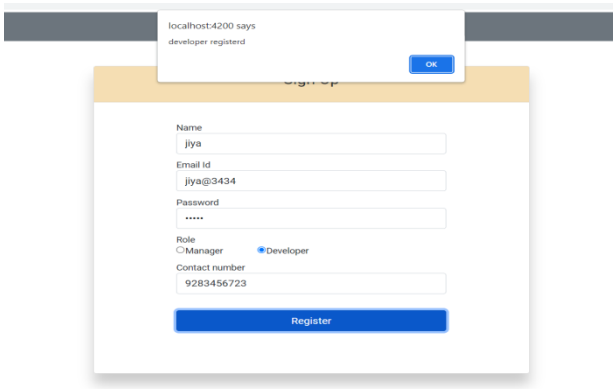
ReactJS is a declarative, efficient, and flexible JavaScript library for building reusable UI components. It is an open-source, component-based front end library responsible only for the view layer of the application. The React. js framework is an open-source JavaScript framework and library developed by Facebook. It's used for building interactive user interfaces and web applications quickly and efficiently with significantly less code than you would with vanilla JavaScript. .

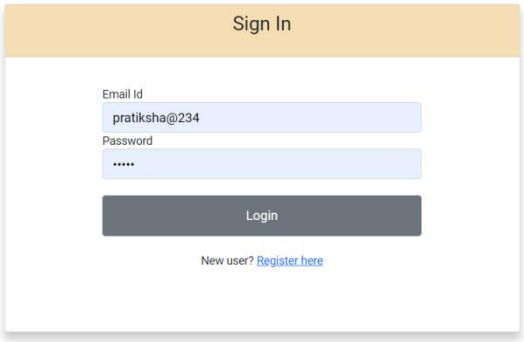
2)Mysql database:-

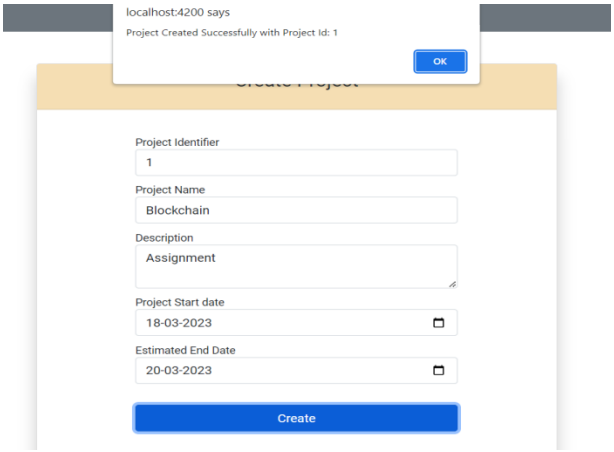
MySQL is popular among all databases, and is ranked as the 2nd most popular database, only slightly trailing Oracle Database. Among open source databases, MySQL is the most popular database in use today. Known as one of the most reliable and performative databases out there, it was named after it's founders daughter My, and is known for organizing data into one or more data tables in which data types are related to each other. These relations help structure data, as SQL is a language programmers use for creation, modification and extraction of data from a relational database.

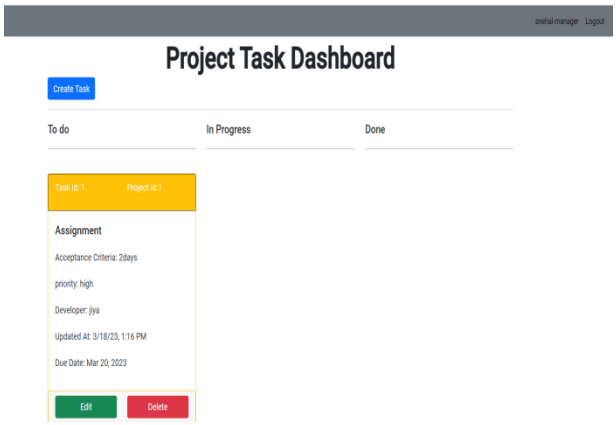
MySQL is a relational database that uses structured query language. Relational databases are a type of database that uses a structure

that allows us to identify and access the data in relation to another piece of data inside of the database. This format is often organized as tables.









Module-

- Dragging cards.
- Creating Columns and grouping by Status, Assignee or Tags.
- WIP limits(Work In Progress).
- Linking cards to conversations.
- Sorting by conversation's creation date or last reply date.
- Filtering by Status, Assignee, State (Published, Draft, Deleted), Tag and Custom Fields.
- Viewing existing mailboxes in Kanban style.

Hardware And Software used in proposed system:

Hardware:

a.Processor :Intel i5,7th generation.
b.Processor Speed 2GHZ and Above
c.RAM:8GB
d.Hard Disk:1TB and above

Software:

a.Operating system :windows 10,11
b.Database : MySql
c.Frontend : Node Js

d.Backend : Springboot
e.Browser : Chrome,Microsoft Edge

Conclusion:

Kanban boards are a great way to break down large, complex projects into trackable, discrete actions. The team can check in on these actions at any time to understand where the project stands. Kanban is not rocket science! It's a super easy project management methodology. Whether you're using a personal Kanban board for task management or managing multiple projects.

References:

1. MAHGOL AMIN, "KANBAN Implementation from a Change Man- agement Perspective: A Case Study of Volvo IT", School of Business, Society and Engineering, Mälardalen University (2014)
2. Sanjay Pandit Patil, Dr. Jitesh R. Neve, "Productivity Improvement of Software Development Process through Scrumban: A Practitioner's Approach", International Conference on Advances in Communication and Computing Technology (ICACCT)(2018)
3. Hamzah Alaidaros, "Identification of criteria affecting software project monitoring task of Agile Kanban method", Published by the American Institute of Physics,2016
4. Maria Mojarro, "Impact of the Planning from the Kanban system on the company's Operating Benifits", Article in sustainability. July 2018.
5. Udit Kumar Nath, "Issues of lean-agile software development en- vironment", International Journal of Engineering and Technology, 7 This publication is licensed under Creative Commons Attribution CC BY. http://dx.doi.org/10.29322/IJSRP.10.11.2020.p10786 www.ijsrp.org
6. Muhammad Ovais Ahmad, Denis Dennehy, "Kanban in software en- gineering: A systematic mapping study", The Journal of Systems and Software 137 (2018) 96–113
7. Ahmad, M. O., Markkula, J., and Oivo, M. (2013, September)."Kanban in software development: A systematic literature review", In Software Engineering and Advanced Applications (SEAA), 2013 39th EUROMI- CRO Conference on (pp. 9-16).