IdeaBoat – Democratizing the Application Development

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Abstract

The Internet has become a platform for sharing opinions, exchanging ideasand learing. Social networking sites like Twitter, Facebook are some popular platforms that allow people to share and express their views about what they want in software and what they didn't like.
Still, their opinions rarely reach any software developer or software development agency and on the developer's side, they struggle to look for inspirations to develop something.
The goal of this project IdeaBoat is bridging the communication and collaboration gap between software developers and end users to develop better accepted software.
Collaboration of end users starts from idea formation till beta testing of thesoftware.

Keywords—Software Development;Social networking sites;
bridging the communication and collaboration gap; Microblogging;

1. Introduction

Recommendation System is aninformationtoolwhichhelps users to find out the items which they wantfrom the largenoof items available , . Main goal ofrecommendation system is toforecast the ratingwhich a specific user gives toan item. It helps the user to find the best solutionfrom the available list of items. Manycompanies use recommendation system sothat they can serve their user andraise their profit like Netflix, YouTube, Amazonandothers Still now it is a goodtopicofresearchbecauseto find what the user wantsfromavailableresource is a big challenge, asourchoicekeepsonchanging with time. Nowadayswhat we purchaseonline is recommendation. Forexample, if we wantto buy books, listen music, watchmoviesetc there is onerecommendation system that is working in backgroundwhich suggest the user basedon his previousactions . Manyplatforms like Netflix which suggest movies, Amazonwhich suggest products, Spotifythat suggest music, LinkedIn that is used forrecommendingjobsoranysocialnetworking sites which suggest users, all these workonrecommendation system ,. By using these recommendation engine users caneasily find outwhat he wantsaccordingto his/her choice. Soto build aneffectiverecommender system is also a challengebecause user's preferencekeepsonchanging with time.

1.1 Applications

Since the start of web 2.0 connectivity among people across the globe has significantly increased. The major thing that happened in web 2.0 was the rise of social media platforms.Social Media connects people across the globe to share their ideas, thoughts, and anything they can.

- Github has come up as a great platform to discuss and share ideas for the development of software but is mainly used by technical people.

- Stack Overflowis a question and answer website for professional and enthusiast programmers.It was created in 2008 by Jeff Atwood and Joel Spolsky. It features questions and answers on a wide range of topics in computer programming, is mainly used for technical doubts.

- LinkedIn is an American business and employment-oriented online service that operates via websites and mobile apps and is mainly used for job related things.

- Twitter is an American microblogging website on which users post their views and interact with messages known as "tweets".

1.2 Literature Review

Considering that software engineers are creators and early adopters of new communication technologies, it comes as no surprise that they are already using modern social media tools to organize software development-related work more efficiently. (Begel, DeLine, Zimmermann, “Social media for software engineering”, 2010) [1].

Here we provide a brief description of various media that helped developers to get inspiration to develop innovative software applications which are solving day-to-day problems,

Microblogging: It is a way to share extremely short messages to the followers who are subscribed to the person or public. Microblogging seems to share very precisely yet effective ideas/opinions of platform users. Major microblogging platforms are Twitter and Koo.

Social Networking: Social Media platforms are the most of way of sharing ideas/opinions on the internet. Although, social media platforms helped the Open-Source Software Development significantly. People with common interests generally form groups to share pictures, ideas, feelings, and videos.

Community Q&A: The biggest Q&A platform which has helped an infinite number of developers to ask questions about debugging and troubleshooting their code is StackOverflow. Although, Stackoverflow focuses on developers and engineers. There is another Q&A platform for the public, Quora.com where people ask questions and other people answer those questions.

Even though there are several types of social media platforms to share ideas/opinions/thoughts which are contributing to the software development up to a certain level but still there is a large gap and there is no

dedicated platform to bridge the gap. As shown in this paper (Frankena, Kolvenbacha, Prinza, Alvertisb" CloudTeams: Bridging the Gap between Developers and Customers during Software Development Processes") [2], despite having major platforms to share ideation and early-stage involvement of the consumers, still developers lack to seek inspiration and direct connection with the major part of their software consumers.

While another review research paper states, "Some companies are concerned with SM (Social Media) being a distractive tool because employees may use it for personal reasons rather than professional use during office hours, and others hold back on utilizing SM for SD for intellectual property and privacy-related issues as well." (Nematova1a, Rehman, Amin, Hashmani, 'Review of Social Media Influence on Software Development') [3]. Thus, existing social media such as Twitter, Facebook, or any other social media platform do not support

engaging the software ideas from the people with developers and do not build a close relationship with developers for receiving new ideas or problem statements that can be solved using the software.
Crowdsourcing is the practice of involving a crowd of people to volunteer their resources for a common goal. Crowdsourcing in software development includes capital gains, volunteer developers, software testing, and A/B testings. Crowdsourcing often provides Open Source Software solutions.
Despite being a helpful method to solve a common goal of a group of people, this method alone lacks commitment and control over the Open Source Software.

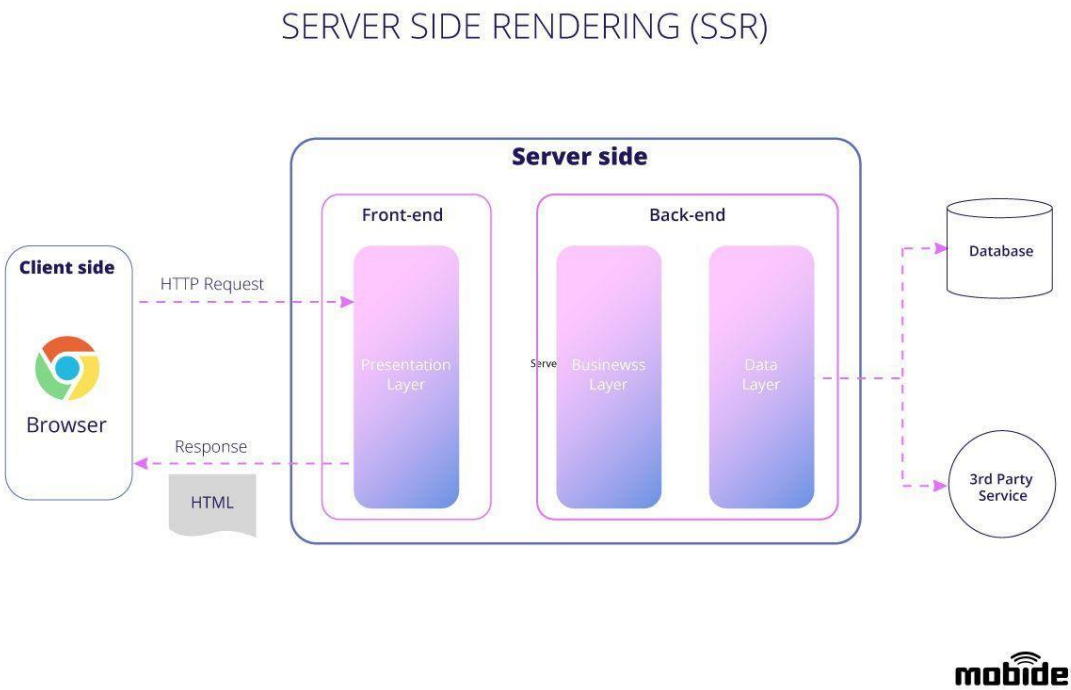
Freelancing websites are used to hire workers for a short or one-time project where people hire other skilled people. Businesses or businesspeople hire skilled software developers to develop software for their business needs while there is an extremely low percentage of people who use freelancing websites for developing open-source software that aims to solve a common problem faced by numerous people. [4]

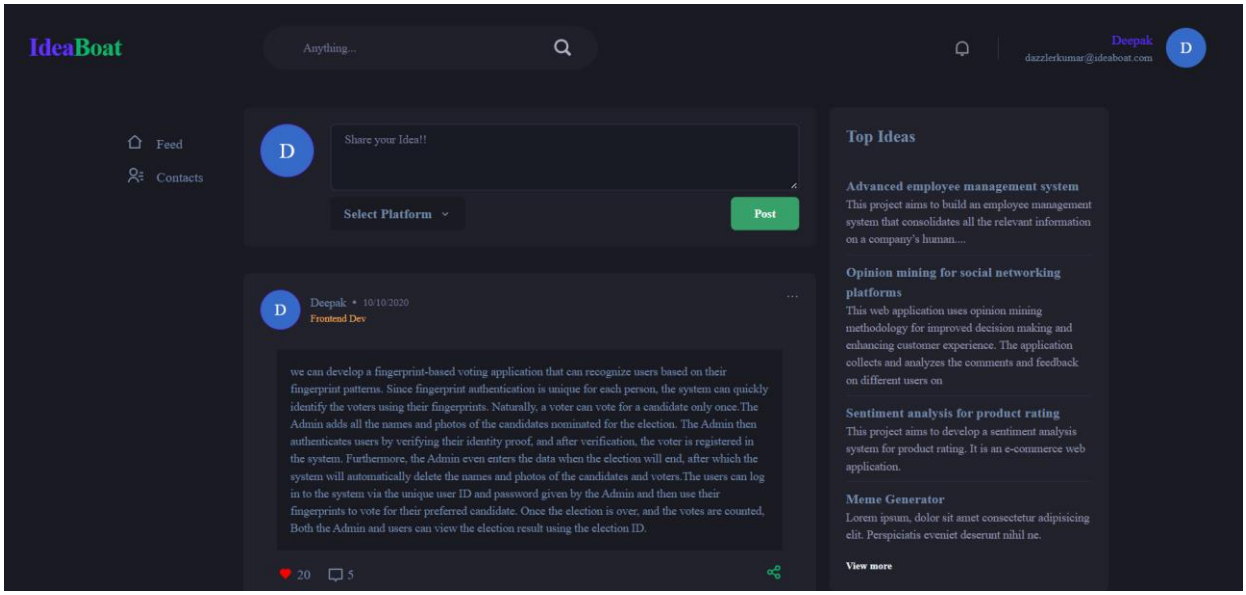
2.Proposed Work

Democratizing software development will surely empower the non-technical public to choose what they need and what they want. Certainly, there exist such social media platforms where all kinds of people share all kinds of thoughts/ideas/opinions which certainly doesn't entertain the developers who are looking for inspiration to develop software.
To bridge the gap between developers and the public to build something for their needs as well as wants we have come up with a platform to bridge the gap. This platform will be a microblogging social media software where people will only come to share their ideas or needs for software they want to develop and on the other hand, developers will come to seek inspiration for the next development where the developer is assured that a certain amount of people use his software.

IdeaBoat will promote ideas shared by the people based on the votes received by the idea via people on the platform and will be publicized the top 100 most voted ideas on a leaderboard.

IdeaBoat will also promote the participation of end-users at the different stages of the software development process by using community-building practices such as rating, commenting, and sharing.





Picture shown above areui images and working architecture, We believe the approach taken by ideaBoat will democratize the software development

3. Conclusion & Future Work

3.1 Conclusion

In this paper, we analyzed the requirements and the needs for customer participation in the ideation of software development. Related work shows that several solutions exist for sharing ideas and feedback with the consumers, but that manner is still in its infancy (despite solutions for crowdsourcing and crowdfunding), which makes it hard for developers to reach potential ideas and proper feedback from people.

A throughout analysis of several survey papers shows that there is a high demand for a platform bringing together users and customers to develop a software product that meets the needs and wants of the consumers.

3.1 Future Work

The next step of our future work is to examine the conceptual framework (or test the theoretical as well as current working model)help avoiding falling scenarios, to develop updated plugins.
To integrate the project with Machine Learning models for recommendations based on user preferencesand rebuild or shift the whole project using serverless architecture and connect with trending technology.

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