**Chapter 2: LITERATURE SURVEY**

The Project Tracking System is an automated version of manual Project Management System. It can handle all details about the user. The details include user personal details, project details, login details, academic details, history details etc. [1]

In case of manual system they need a lot of time, manpower etc. Here almost all work is computerized. So the accuracy is management system is managed by an administrator. It is the job of the administrator to insert update and monitor the whole process. When a user maintained. Maintaining backup is very easy. [4] It can do with in a few minutes. Our system has two type of accessing modes, administrator and user. Project log in to the system. Users would only view details of the student. Users can’t perform any changes unless and until they register on our website. [5] Then only they can make changes into the project but by permission of administror and particular project’s owner. Our system has five modules, they are administrator, user, projects, project department, and project section.

Consider the following eye-opening statistics:

* A study released this year by Symantec and the ponemon institute the average organizational cost of one project management system is in the united states is 5.4 millions dollars. Another recent study shows that the cost of project management system is in U.S. Economy is 140 billons dollars per year.
* One of the largest branches involved the U.S. network in 2011 , and experts estimate costs related to the branch to be somewhere between 2.7 and 24 billons dollars .[6]
* Software project management accounts for creating various business-based applications meeting security challenges and performing activities in collaboration with the authorized corporation within short span of time.

**2.1 A (Brief) History of Stack of project**

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[](https://en.wikipedia.org/wiki/File:WebDesignBooks.JPG)

**Screen 2.1.1 Stack Of Project’s**

**Stack Overflow** is a privately held website, the flagship site of the [Stack Exchange Network](https://en.wikipedia.org/wiki/Stack_Exchange), created in 2008 by [Jeff Atwood](https://en.wikipedia.org/wiki/Jeff_Atwood) and [Joel Spooky](https://en.wikipedia.org/wiki/Joel_Spolsky).[1] It was created to be a more open alternative to earlier [question and answer sites](https://en.wikipedia.org/wiki/Question-and-answer_site) such as [Experts-Exchange](https://en.wikipedia.org/wiki/Experts-Exchange). The name for the website was chosen by voting in April 2008 by readers of Coding Horror, Atwood's popular programming blood. It features questions and answers on a wide range of topics in [computer programming](https://en.wikipedia.org/wiki/Computer_programming). [2]

The website serves as a platform for users to ask and answer questions, and, through membership and active participation, to vote questions and answers up or down and edit questions and answers in a fashion similar to a [wiki](https://en.wikipedia.org/wiki/Wiki) or [Digs](https://en.wikipedia.org/wiki/Digg). [4] Users of Stack Overflow can earn [reputation points](https://en.wikipedia.org/wiki/Reputation_system) and "badges"; for example, a person is awarded 10 reputation points for receiving an "up" vote on an answer given to a question , and can receive badges for their valued contributions, which represents a kind of [gasification](https://en.wikipedia.org/wiki/Gamification) of the traditional [Q&A site](https://en.wikipedia.org/wiki/Q%26A_site). All [user-generated content](https://en.wikipedia.org/wiki/User-generated_content) is licensed under a [Creative Commons Attribute-Share Alike](https://en.wikipedia.org/wiki/CC-BY-SA_3.0) license. Closing questions is a main differentiation from [Yahoo! Answers](https://en.wikipedia.org/wiki/Yahoo!_Answers) and a way to prevent low quality questions. The mechanism was overhauled in 2013; questions edited after being put "on hold" now appear in a review queue. [6]

Jeff Atwood stated in 2010 that duplicate questions are not seen as a problem but rather they constitute an advantage if such additional questions drive extra traffic to the site by [multiplying relevant keyword hits in search engines](https://en.wikipedia.org/wiki/Search_engine_optimization). As of April 2014 Stack Overflow has over 4,000,000 registered users, and it exceeded 10,000,000 questions in late August 2015.Based on the type of [tags](https://en.wikipedia.org/wiki/Tag_(metadata)) assigned to questions, the top eight most discussed topics on the site are: [Java](https://en.wikipedia.org/wiki/Java_(programming_language)), [JavaScript](https://en.wikipedia.org/wiki/JavaScript), [C#](https://en.wikipedia.org/wiki/C_Sharp_(programming_language)), [PHP](https://en.wikipedia.org/wiki/PHP), [Android](https://en.wikipedia.org/wiki/Android_(operating_system)), J[query](https://en.wikipedia.org/wiki/JQuery), [Python](https://en.wikipedia.org/wiki/Python_(programming_language)) and [HTML](https://en.wikipedia.org/wiki/HTML). Stack Overflow also has a Jobs section to assist developers in finding their next opportunity. For employers, Stack Overflow provides tools to brand their business, advertise their openings on the site, and source candidates from Stack Overflow's database of developers who are open being contacted.[2]

**History**

The website was created by [Jeff Atwood](https://en.wikipedia.org/wiki/Jeff_Atwood) and [Joel Spooky](https://en.wikipedia.org/wiki/Joel_Spolsky) in 2008. On 31 July 2008, Jeff Atwood sent out invitations encouraging his subscribers to take part in the private beta of the new website, limiting its use to those willing to test out the new software. On 15 September 2008 it was announced the public beta version was in session and that the general public was now able to use it to seek assistance on programming related issues. The design of the Stack Overflow logo was decided by a voting process. On 3 May 2010 it was announced that Stack Overflow had raised $6 million in venture capital from a group of investors led by [Union Square Ventures](https://en.wikipedia.org/wiki/Union_Square_Ventures). With the first release on July 21, 2017, [Brave](https://en.wikipedia.org/wiki/Brave_(web_browser)) web browser features Stack Overflow as one of its default search engines. [4]

**2.2 Content criteria**

Stack Overflow only accepts questions about programming that are tightly focused on a specific problem.[5] Questions of a broader nature–or those inviting answers that are inherently a matter of opinion– are usually rejected by the site's users , and marked as closed. The sister site softwareengineering.stackexchange.com is intended to be a venue for broader queries, e.g. general questions about [software development](https://en.wikipedia.org/wiki/Software_development). [8]

**2.3 User suspension**

In April 2009, Stack Exchange implemented a policy of "timed suspension", in order to curtail users who either show "No effort to learn (the community rules) and improve over time" or engage in "disruptive behavior" and become a nuisance. [6] The suspension is accompanied by temporarily setting the user's reputation score at '1' and a notation on the user's profile page indicating the suspension and remaining duration.[7]

**2.4 Statistics**

A 2013 study has found that 77% of users only ask one question, 65% only answer one question, and only 8% of users answer more than 5 questions. As of 2011, 92% of the questions were answered, in a median time of 11 minutes. Since 2013, the Stack Exchange network software automatically deletes questions that meet certain criteria, including having no answers in a certain amount of time.[8] As of August 2012, 443,000 of the 1.3M registered users had answered at least one question, and of those, approximately 6,000 (0.46% of the total user count) had earned a reputation score greater than 5000. Reputation can be gained fastest by answering questions related to tags with lower expertise density, doing so promptly (in particular being the ﬁrst one to answer a question ) , being active during off-peak hours, and contributing to diverse areas. In 2016, 1.5 million posts were deleted, of which about 8% were deleted by moderators. [9]

**2.5 Technology**

Stack Overflow is written in [C#](https://en.wikipedia.org/wiki/C_Sharp_(programming_language)) using the [ASP.NET MVC](https://en.wikipedia.org/wiki/ASP.NET_MVC) ([Model-View-Controller](https://en.wikipedia.org/wiki/Model-View-Controller)) framework, and [Microsoft SQL Server](https://en.wikipedia.org/wiki/Microsoft_SQL_Server) for the database and the [Dapper](https://en.wikipedia.org/wiki/Dapper_ORM) [object-relational mapper](https://en.wikipedia.org/wiki/Object-relational_mapper) used for data access. [9] Unregistered users have access to most of the site's functionality, while users who sign in (for example, by using the [OpenID](https://en.wikipedia.org/wiki/OpenID) service) can gain access to more functionality , such as asking or answering a question, establishing a profile and being able to earn reputation to allow functionality like re-tagging questions or voting to close a question.[10]

**2.6 Reception**

Stack Overflow has received general praise for its architecture of handling questions and answers as they are regulated by the community. Its success has often been attributed to self-regulation. Romanian researcher Bogdan Vasilescu criticized Stack Overflow, saying that its policies discouraged women from being actively involved while an editor from [Medium](https://en.wikipedia.org/wiki/Medium_(website)) said it kept maintaining a negative atmosphere for newcomers.[5] In another report, researchers conducted empirical studies to identify what types of barriers exist for women, as well as men for posting. The study suggested that the site encourages one-upmanship, [flame-wars](https://en.wikipedia.org/wiki/Flaming_(Internet)) and down-voting which makes it less likely that female users will participate. It criticized the rewards system and found instances of “gender swapping" with females adopting male or gender-neutral personas and some males masquerading as females thinking that they will not be treated as harshly. Stack Overflow has been criticized for encouraging the proliferation of bad code, specifically by encouraging developers to prioritize functionality at the expense of other features like security. A study from the University of Maryland found that Android developers that used only Stack Overflow as their programming resource tended to write more insecure code than those who used only the official Android developer documentation from Google.[10]

**Stack Exchange** is a network of [question- and-answer websites](https://en.wikipedia.org/wiki/Comparison_of_Q%26A_sites) on topics in varied fields , each site covering a specific topic, where questions, answers , and users are subject to a [reputation award](https://en.wikipedia.org/wiki/Trust_metric) process. The sites are modelled after [Stack Overflow](https://en.wikipedia.org/wiki/Stack_Overflow), a Q&A site for [computer programming](https://en.wikipedia.org/wiki/Computer_programming) questions that was the original site in this network. The reputation system allows the sites to be self-moderating. As of April 2017, the three most actively-viewed sites in the network are [Stack Overflow](https://en.wikipedia.org/wiki/Stack_Overflow), Super User and [Ask Ubuntu](https://en.wikipedia.org/wiki/Ask_Ubuntu). User contributions are licensed under [Creative Commons Attribution-Share Alike 3.0 Unported](https://en.wikipedia.org/wiki/Creative_Commons_license).

**2.7 Site features**

The primary purpose of each Stack Exchange site is to enable users to post questions and answer them.[1] Users can vote on both answers and questions , and through this process users earn reputation points , a form of [gasification](https://en.wikipedia.org/wiki/Gamification). This voting system was compared to [Digs](https://en.wikipedia.org/wiki/Digg) when the Stack Exchange platform was first released. Users receive privileges by collecting reputation points, ranging from the ability to vote and comment on questions and answers to the ability to moderate many aspects of the site.[2] Along with posting questions and answers, users can add comments to them and edit text written by others. Each Stack Exchange site has a "meta" section where users can settle disputes , in the style of [MetaFilter](https://en.wikipedia.org/wiki/MetaFilter)'s " Meta Talk" forum , because the self-moderation system for questions and answers can lead to significant arguments. [3]Notable parts of Stack Exchange include sites focused on [physics](https://en.wikipedia.org/wiki/Physics), [video games](https://en.wikipedia.org/wiki/Video_game), and [patents](https://en.wikipedia.org/wiki/Patent). All [user-generated content](https://en.wikipedia.org/wiki/User-generated_content) (questions and answers) posted on the Stack Exchange Network is copyright by the contributor and licensed to Stack Exchange under the [Creative Commons Attribution Share Alike](https://en.wikipedia.org/wiki/Creative_Commons_license) (CC-BY-SA) license. [4]

**2.8 Technologies used**

Stack Exchange uses [IIS](https://en.wikipedia.org/wiki/Internet_Information_Services), [SQL Server](https://en.wikipedia.org/wiki/Microsoft_SQL_Server), and the [ASP.NET](https://en.wikipedia.org/wiki/ASP.NET) framework, all from a single code base for every Stack Exchange site (except Area 51, which runs off a fork of the Stack Overflow code base).Blogs formerly used [Word Press](https://en.wikipedia.org/wiki/WordPress), but they have been discontinued. The team also uses [Redis](https://en.wikipedia.org/wiki/Redis), [HAP Roxy](https://en.wikipedia.org/wiki/HAProxy) and [Elastic search](https://en.wikipedia.org/wiki/Elasticsearch). Stack Exchange tries to stay up to date with the newest technologies from [Microsoft](https://en.wikipedia.org/wiki/Microsoft), usually using the latest releases of any given framework. The code is primarily written in C# ASP.NET MVC using the Razor View Engine [5]. The preferred [IDE](https://en.wikipedia.org/wiki/Integrated_development_environment) is [Visual Studio](https://en.wikipedia.org/wiki/Microsoft_Visual_Studio) and the data layers uses Dapper for data access. As of 2016, Stack Exchange utilizes Fortinet 800c Firewalls, which replaced Cisco 5525-X ASAs. Routers were upgraded from CISCO 3945 routers to CISCO ASR-1001 and AST-1001-x routers. Stack Exchange maintains open-source .Net libraries for the public. The names of the libraries are Dapper, StackExchange.Redi, MiniProfiler, Exceptional, Jill, Sigil, Net Gain, profit, and Bonus. Stack Exchange believes the open sourced content will benefit the developer community. [6]

* 1. **Site creation process**
* Every new site created in the Stack Exchange network goes through a detailed review process consisting of six steps:
* Discussion: The Stack Exchange Meta site should provide a forum for discussing potential new ideas labeled a future Stack Exchange site.
* Proposal: A public proposal must be drafted and posted so that any member of the community can discuss the proposal and vote on it. This allows a collaborative proposal to emerge over time. The proposal must address these four key issues:
  + the topic of the site
  + forty exemplary questions, up voted at least 10 times from the community
  + 4.sixty followers from the community.[7]
* Commitment: 200 users interested in the new site area asked to formally commit and support the site by actively participating and contributing to it.
* Private Beta: If the concept receives 100% commitment, the site enters the private beta phase, where committed members begin actively using the site and publicizing it.
* Public Beta: The site is open to the public for a long period. This allows the creators to ensure that the site reaches critical mass before it is fully launched.
* Graduation: The site is evaluated on multiple criteria such as the number of answered questions, new questions per day, and registered users. If it meets these criteria and is deemed "sustainable ", it is granted a "graduation" and fully launched.[8]