**Introduction**

Coding is the ability to design, write, test, implement and maintain a computer program’s source code. This code is written in a programming language, with its own syntax and meanings. In order to be able to code, you need to understand this language, and understand the way it works.

Today, Code powers our digital world. Every website, smartphone app, computer program, calculator and even microwave relies on code in order to operate. This makes coders the architects and builders of the digital age.

Coding isn’t that easy, right? Many programmers (beginners-experts) face lots of problems and themselves many question like is my code clean enough? Is it easy to understand and change for other developers, or even for myself In the future? How does this function interact with other functions? Can it affect any of them in a bad way? Can it easily be used by other functions?and more problems while coding like When you make a change to a program, or you add a new feature, you run the risk of introducing new bugs into the program and when you write code which is duplicated in the program it can be hard to maintain and can introduce bugs and more problems they face thus programmers have many questions about where is the problem and the best way to solve this problem so CodeGuide solve all this ,So what is the CodeGuide?

CodeGuide is a website being developed especially to help programmers facing problems in programming languages field so to save their time and effort in searching for hours in online documentation and trying to fix problem by themselves, Codeguide society has millions of Questions &

Answers about almost all computer languages and Programmers can easily reach the answer to their question and they can also improve their coding skills as CodeGuide provides virtual problems assumed by moderators of website or tasks made by instructors in addition to links for the best online courses related to a certain language they want to improve themselves in it.

**Survey**

Q&A software is online software that attempts to answer questions asked by users (Q&A stands for "question and answer"). Q&A software is frequently integrated by large and specialist corporations and tends to be implemented as a community that allows users in similar fields to discuss questions and provide answers to common and specialist questions.

Q&A software is often provided to corporate and specialist sites, so the site and its users can be asked questions as well as provide or receive expert answers to them. This kind of software is particularly useful for responding to questions regarding specific industries. Users may learn by regularly answering questions or exchanging views with other industry specialists using the website.

**In the late 1990s**, a free online service called Answer Point provided by Ask Jeeves, was launched, allowing users to ask questions and with the help of other people, have them answered. The slogan of the service, "The Ask Jeeves Answer Point is the place where you can ask and answer questions. Have a question? Post it! Know the answer? Post it! ", indicated the main function of it, which inspired the creation of later Q&A sites. The last archived version of the Ask Point was from late 2001 when it still allowed registration.

Since then, more and more sites have begun to offer Q&A services. Google launched its Q&A service called Google Questions and Answers in August 2001 which used Google staffers to answer questions by e-mail. A flat fee (US$3.00) was involved for an answer. In April 2002, Google launched Google Answers, which allowed users to post answers to questions, to replace its predecessor. Google Answers cost askers $2 to $200 for an accepted answer. By late December 2006, it was fully closed to new activity.

**In early 2000s**, Yahoo! launched its online Q&A service called Ask Yahoo!, which was later replaced by the beta version of Yahoo! Answers on December 8, 2005. Ask Yahoo! was discontinued in March 2006. Yahoo! Answers give members the chance to earn points, thus encouraging user participation. To support countries using non-English characters, Yahoo! Answers operate different platforms in some Asian countries, such as Yahoo! in Japan and as Yahoo! Knowledge in Korea, Taiwan, China, and Hong Kong.

**in June 2009**, Quora was founded, while the website was made available to the public on June 21, 2010. Users can collaborate by editing questions and suggesting edits to other users' answers.

**From 2010** with the widespread use of smartphones and tablets, there is an increasing number of Q&A sites that decide to launch mobile applications. Popular Q&A sites like Yahoo! Answers and Quora have launched their own mobile applications. There is also a booming of new Q&A software such as Canvass which purely rely on mobile applications as their service channel.

Many different sites have focused on helping programmers either beginner or expert to solve their problems in codes can be represented as following:

**SITEPOINT**: SitePoint is a center for web developers to share their passion for making incredible things on the internet. It was made for web professionals by web professionals and helps designers, developers, entrepreneurs, product creators, and programmers. Those who are looking for information can simply type in their keywords into the search box, and browse the articles available. The articles can then be sorted by category, and then by author. Additionally, users can search for their desired coding language simply by using the menu bar and it is all sorted neatly. This will include HTML and CSS, JavaScript, PHP, Ruby, Mobile, Design & UK, WordPress, Java, and more.

**Quora:** is a question-and-answer website where questions are asked, answered, edited, and organized by its community of users in the form of opinions. Its publisher, Quora Inc., is based in Mountain View, California. The company was founded in June 2009, and the website was made available to the public on June 21, 2010. Users can collaborate by editing questions and suggesting edits to answers that have been submitted by other users.

**Posts :**

User can interact with community by Posting his Question

* **Big text area**

It is the area where the user can write his question or reply to others questions by commenting.

**Some of its features are listed below:-**

1. User can upload images & files related to his question.
2. User can include links.
3. Posts can be written in different fonts,styles,sizes & colors.
4. User can write the code that he wants to ask about in a specific area.
5. User can use tags to relate his question with specific topic.
6. Ordered and unordered list.
7. Number of characters that user can type are limited to 600 characters.

* **Rating**

1. There are only postive rating.
2. The comments are rated by others and the answer that has the best rating will be marked as the best solution.
3. And the mark is a blue tick beside the comment.
4. Best rated comment will be put below the question so that other users searching for the same question can reach the best answer easily.

* **Profile**

Profile page includes basic information of the user:

1. Username (should be unique).
2. Password (should not be less than 12 characters and include at least one letter).
3. It contains his posts.
4. A tab including all the website questions.
5. A dropdown box for notifications.

* **User Should**

1. Login first in order to post his question or reply to others questions.
2. Make his question specific & clear as much as possible.
3. Help people with their problems so that others can help you with your problems.
4. Consider that the number of characters does not exceed the limit.

**Stack Overflow [1]**

Stack Overflow is a privately held website, the flagship site of the Stack Exchange Network, created in 2008 by Jeff Atwood and Joel Spolsky. It features questions and answers on a wide range of topics in computer programming. It was created to be a more open alternative to earlier question and answer sites such as Experts-Exchange. The name for the website was chosen by voting in April 2008 by readers of Coding Horror, Atwood's popular programming blog.

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 or Digg. Users of Stack Overflow can earn reputation points and "badges"; for example, a person is awarded 10 reputation points for receiving an "up" vote on an answer given to a question and 5 points for the "up" vote of a question, and can receive badges for their valued contributions, which represents a kind of gamification of the traditional Q&A site. Users unlock new privileges with an increase in reputation like the ability to vote, comment, and even edit other people's posts. All user-generated content is licensed under a Creative Commons Attribute-ShareAlike license.

Stack Overflow only accepts questions about programming that are tightly focused on a specific problem. 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

Stack Overflow is written in C# using the ASP.NET MVC (Model-View-Controller) framework, and Microsoft SQL Server for the database and the Dapper object-relational mapper used for data access.

Stack Overflow Tour: Some of Stack Overflow’s key features are listed below with brief description.

1. Ask questions, get answers without distractions

2. Tags

3. Reputation

4. Improving posts by editing or commenting

5. Badges

6. Jobs

7. Simplicity

8. Mobile-Friendly Design

9. Strict Moderation

10. Daily Community Involvement

11. Strong Leadership

**Ask questions, get answers without distractions**

Good answers are voted up and rise to the top.

The best answers show up first so that they are always easy to find.

The person who asked can mark one answer as "accepted".

Accepting doesn't mean it's the best answer, it just means that it worked for the person who asked.

**Tags**

All questions are tagged with their subject areas. Each can have up to 5 tags, since a question

might be related to several subjects.

Click any tag to see a list of questions with that tag, or go to the tag list to browse for topics that interest you.

**Reputations**

Your reputation score goes up when others vote up your questions, answers and edits.

As you earn reputation, you'll unlock new privileges like the ability to vote, comment, and even edit other people's posts.

At the highest levels, you'll have access to special moderation tools. You'll be able to work alongside our community moderators to keep the site focused and helpful.

**Improving posts by editing or commenting**

Our goal is to have the best answers to every question, so if you see questions or answers that can be improved, you can edit them.

Use edits to fix mistakes, improve formatting, or clarify the meaning of a post.

Use comments to ask for more information or clarify a question or answer. You can always comment on your own questions and answers. Once you earn 50 reputation, you can comment on anybody's post.

**Badges**

Badges are special achievements you earn for participating on the site. They come in three levels: bronze, silver, and gold.

**Jobs**

Stack Overflow Jobs is built with the mission of helping all developers find work they love. Just as we built Q&A to give developers a better way to find answers, Jobs is designed to give you better ways to find your dream job. Whether you are looking for a job today or just want to keep an eye out for the right opportunity, it’s easy to get started and participate as you wish.

**Simplicity**

Stack Overflow uses a simple process. During registration, a person can use his or her pre-existing Google or Facebook account to sign up in addition to being able to sign up on the site in the conventional way. The registration process takes only a few seconds and is totally free. This reduces the barrier and converts a person interested in Stack Overflow to a registered Stack Overflow user in a matter of seconds. In addition to registration, asking and answering questions is also free. To make the process even simpler and ensure new users get the best from the platform, Stack Overflow has launched its Stack Overflow Tour.