1. ORGANIZATION PROFILE

“ONLINE QUIZ WEB APPLICATION”

2. INTRODUCTION

The "Online Quiz System" has been developed to override the problems prevailing in the practicing manual system This software is supported to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this system is designed for the particular need of the company to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user-friendly. Online Quiz System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources.

Every organization, whether big or small, has challenges to overcome and managing the information of Question, Course, Student, Result, Quiz Every Online Quiz System has different Course needs, therefore we design exclusive employee management systems that are adapted to your managerial requirements. This is designed to assist in strategic planning, and will help you ensure that your organization is equipped with the right level of information and details for your future goals. Also, for those busy executive who are always on the go, our systems come with remote access features, which will allow you to manage your workforce anytime, at all times. These systems will ultimately allow you to better manage resources.

2. ABSTRACT

The purpose of Online Quiz System is to automate the existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with.

Online Quiz System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.

The aim is to automate its existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. Basically the project describes how to manage for good performance and better services for the clients.

3. SYSTEM ANALYSIS

3.1 Methodology-Classic Life Cycle

To design a computerized system we have followed the software engineering approach. We have chosen life cycle approach for software development. This phenomenon includes System design, System analysis & Testing this is followed by again first phase i.e. repeating the cycle.

System design means understanding the old system completely and planning a new system or to replace or complement the existing system. System analysis means identification, understanding and critically examine the system and its parts (sub system) for the purpose of achieving the goals set of the system as a whole, through modifications, changed interrelationship of component, deleting, merging or separating the components.

The methodology of system analysis involves,

1) Identification of system (setting system boundary)

2) Understanding the role and interrelationship of elements with other elements of the same system.

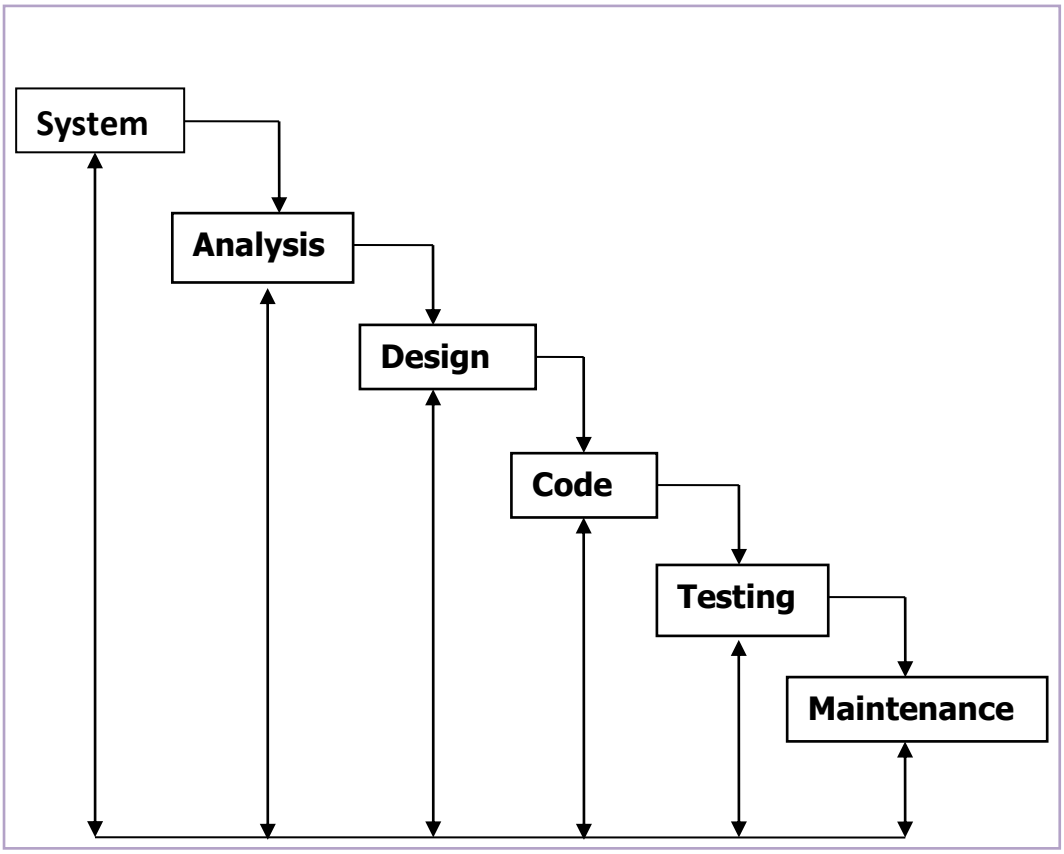
Outcome of the system analysis job is a set of recommendations towards creating system, which best meets, its objectives giving due records to cost effectiveness and risks.

- **The Process Model Used For The System :-**

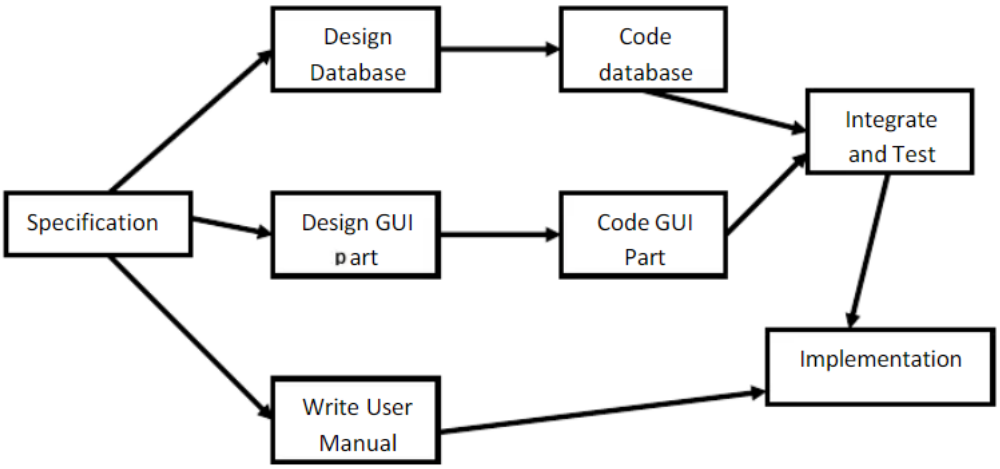
  The process model used for this system "Classic Life Cycle" as this is simple and is best for small scale project.

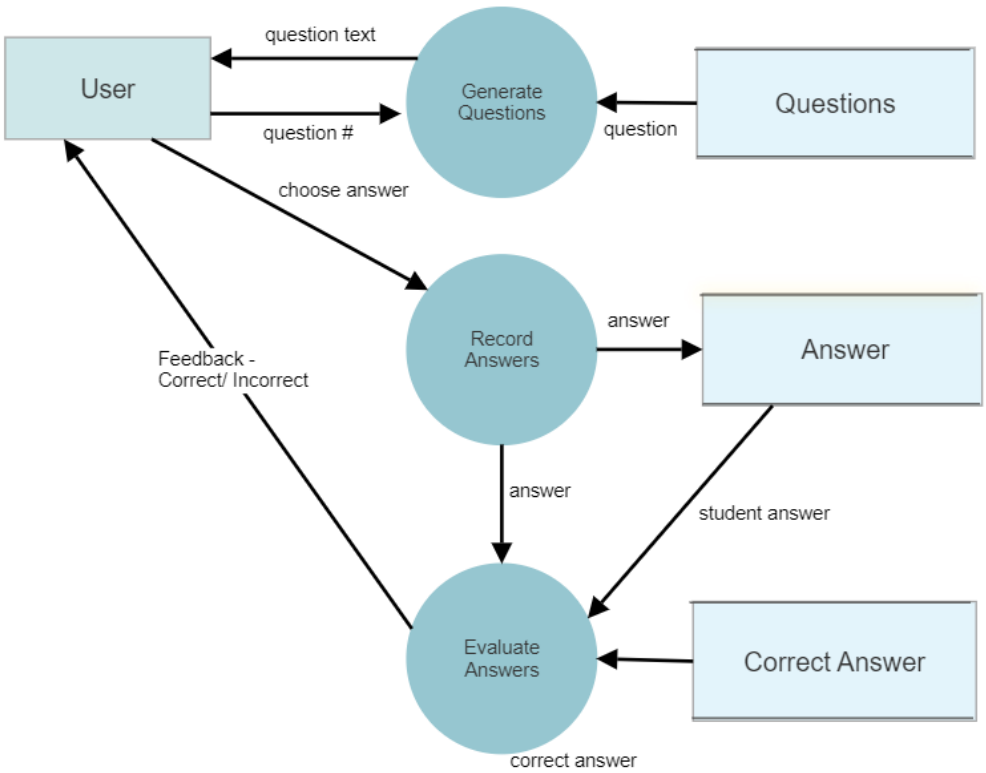
  The **"**Classic Life Cycle**"** is also called as system development life cycle (SDLC).It is defined "The growth of an information system is through various identifiable stages". These stages are grouped together and referred as SDLC. The structure of its stages which we used in our project is as follow:

Classic Life Cycle



3.2 DATA FLOW DIAGRAM (DFD)





4. TOOLS USED

4.1 SOFTWARE & HARDWARE REQUIREMENTS

To run this software, you must have certain hardware & software installed on your computer. The minimum system requirements include:

❖ **Software Requirements:**

- **Server side:**
  - Intellij IDEA– Back end
  - JDK 8 – Back end
  - VS Code – Front end
  - Postman – API Testing
  - My SQL – Database
- **Client side:**
  - HTML 5, CSS 3.0 and JavaScript Compatible browser

❖ **Hardware Requirements:**

- **Server side**
  - Pentium IV or higher processor
  - Minimum 2GB of RAM
  - Minimum 8GB of Disk Space
- **Client side**
  - Pentium III or higher processor computer/ Smart phone
  - VGA or higher resolution screen supported by Microsoft windows.
  - Mouse / Touch screen device
  - A Dot matrix or inkjet printer for taking the printouts.

4.2 FRONT END

❖ **User Interface Design :**

User Interface Design is concerned with the dialogue between a user and the computer. It is concerned with everything from starting the system or logging into the system to the eventually presentation of desired inputs and outputs. The overall flow of screens and messages is called a dialogue.

The following steps are various quidelines for User Interface Design :

1. The system user should always be aware of what to do next.

2. The screen should be formatted so that various types of information, instructions and messages always appear in the same general display area.

3. Message, instructions or information should be displayed long enough to allow the system user to read them.

4. Use display attributes sparingly.

5. Default values for fields and answers to be entered by the user should be specified.

6. A user should not be allowed to proceed without correcting an error.

7. The system user should never get an operating system message or fatal error.

❖ Product Prespective:

It is a quiz application which is based on web application. It usually interacts with user and students. Mainly it is quiz application in which there are 4 categories. Individual category will held 10 questions, and each question carries 1 mark. There is no negative marking. If we do not attempt any question then it will show "not attempted" mark.

In result screen, it will show total marks obtain in quiz, wrong answer will also been shown with correct answer.Main purpose of this application is to develop knowledge and skills in students and user.

❖ Assumptions And Dependencies

We assume that the users of our website should have a minimal knowledge of computer system and should have an availability of internet. We are dependent on the sources from where we have gathered the data and the data are authenticated.

❖ Methodology Used

The programming language used for the development of the project is JAVA and the software model used is the classic lifecycle model.

❖ Waterfall Process Model

The Classical Life Cycle or waterfall Process Model was the first process model to present a sequential framework, describing basic stages that are mandatory for a successful software development model. It formed the basis for most software development standards and consists of the following phases: Requirement analysis, design, coding, testing, and maintenance.

- **Advantages of waterfall model:**

1. Simple goal.
2. Simple to understand and use.
3. Clearly defined stages.
4. Easy to arrange tasks.
5. Process and result are well documented.
6. Customers/ end users already know about it.
7. Easy to manage.

- **Disadvantage of waterfall model:**

1. Rigid design and inflexible procedure.
2. Waterfall model faced "Inflexible point solution" which meant even small amendments in the design were difficult to incorporate later design phase.
3. As the requirement were froze before moving to the design phase, using the incomplete set of requirement, a complete design was worked amendments In case of a large project, completing a phase and then moving back to reconstruct the same phase, incurred a large overhead.
4. Once a phase is done, it is not repeated again that is movement in the waterfall goes one to the next and the vice versa is not supported, deadlines are difficult to meet I case of large projects.

5. FEATURES OF MY SQL

In the business world, everything is about being “better, faster and cheaper” than the competition — and My SQL offers many new features to save energy, time and money. From programming to administrative capabilities, this version of My SQL tops all others and it enhances many existing My SQL features.My SQL is the most exciting release of My SQL for years. With My SQL currently on a 2-year release cycle, each release is more of an evolutionary change from the previous release than a revolutionary change. Therefore, Microsoft My SQL is not a quantum leap forward from My SQL R2, but it does provide a number of interesting new features and enhancements that further extend the performance, reliability, availability, programmability, and ease of use of My SQL

Here I’ll outline some significant new features in order of importance:-

- **New storage features:**

  My SQL provides a few new features related to data storage, primarily intended to improve performance. My SQL provides an enhancement to FILESTREAM storage by allowing more than one file group to be used to store FILESTREAM data. This can improve I/O performance and scalability for FILESTREAM data by providing the ability to store the data on multiple drives.

- **New Transact-SQL (T-SQL) constructs:**

  The new constructs provided in My SQL include these are Sequence objects, THROW statement, new conversion, logical, string, and date and time functions, and ad hoc query paging.

- **New scalability and performance features:**

  Indirect checkpoints, FORCESCAN table hint, number of table partitions increased to 15,000.

- **New security features:**

My SQL introduces Database Audit. Similar to My SQL Audit, Database Audit is based on the new Extended Events feature and enables you to audit database-level events or groups of events. Database Audit, user-defined server roles, contained databases.

- **New availability features:**

A number of high-availability enhancements known as Always on, which include Always on Availability Groups and Always on Failover Cluster Instances.

- **Statistical Semantic Search:**

Statistical Semantic Search builds upon the existing full-text search feature in My SQL by querying the contextual meaning of terms within a document repository.

- **Data Quality Services:**This new feature allows you to build a knowledge base of data rules and use those to perform a variety of critical data quality tasks, including correction, enrichment, standardization, and de-duplication of your data.

5.1 INTRODUCTION TO SQL

SQL stands for Structured Query Language. It is used to access the information from RDBMS (Relational Database Management System) i.e. it is a language that enables the user to create and operate on relational databases which are set of related information stored in tables.

4.4.1.1 What is query?

A query allows you to retrieve the data from tables of a database in a custom format. Query is a question. The answer to the queries can help to manage the organizations operational environment. With queries you can retrieve the data from multiple tables stored in a specific order. With the help of queries it is also possible to update data, delete records or append new records in a table.

5.2 Features of SQL:

- SQL is used to create, maintain and fire query on relational database by using the regular English words for its commands, which makes it easy to use.
- SQL is declarative i.e. you specify what kind of data you want, and then RDBMS is responsible for figuring out the data
- SQL is based on set theory, relational operators such as AND, OR, NOT are used to perform operations on the data.
- SQL includes all arithmetic operations, predicates for comparison, string matching, summary operations, group by and having clause etc.
- SQL provides a view of the specification of database operation that would produce a desired table.
- SQL is generally used in multi-user system, where user will log in by using Authentication ID's. Actions in SQL environments are created to a specific authorization ID, which usually corresponds to a user.

5.3 ABOUT CRYSTAL REPORT:-

A report is nothing but the desired output of any software or project. It is an effective way to present your data in a printed format and display the information in prescribed format, because you have control over the size and appearance of everything on report. You can display the sorted information in a report which is stored in database. You can prepare the reports as you need based on the queries and cannot be used to edit the data. You can use the reports to group data and show subtotals and grand totals.

Crystal report has many extensive capabilities and has been designed to provide you with the most possible flexibility in designing report. Crystal report is quick and easy to learn. It requires very little time before you will be designing interesting and informative reports for your needs.

We are going to use a new version of crystal report named “Crystal Report – SAP Bussiness Object XI”. This new version extends more facilities than last one. This version very is impressive production for application, can create richly formatted and powerfull reports and we can represent report through mobile also.

6. DATABASE STRUCTURE

Table description

1) **Table: question**

Field Name	Data Type	Constraints
id	numeric(18, 0)	Primary kye
questionTitle	varchar(50)	Allow Null
option1	varchar(50)	Allow Null
option2	varchar(50)	Allow Null
option3	varchar(50)	Allow Null
option4	varchar(50)	Allow Null
right_answer	varchar(50)	Allow Null
catrgory	varchar(50)	Allow Null

2) Table:quiz

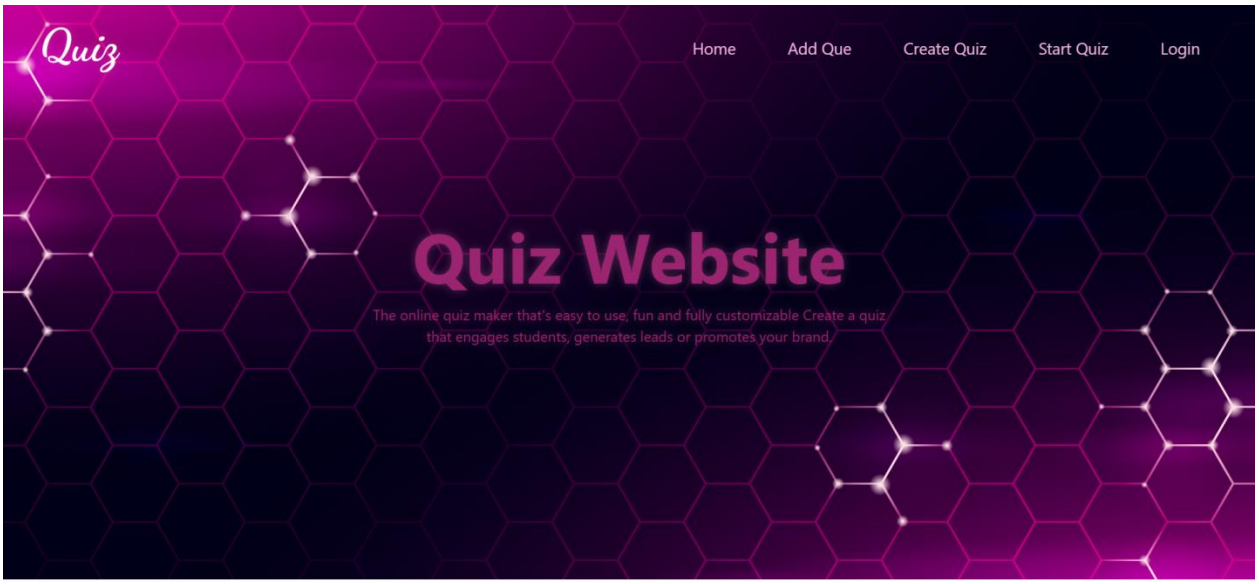
Filed Name	Data Type	Constraints
ID	numeric(18, 0)	Allow Null
title	varchar(50)	Allow Null

3) Table:quiz_question

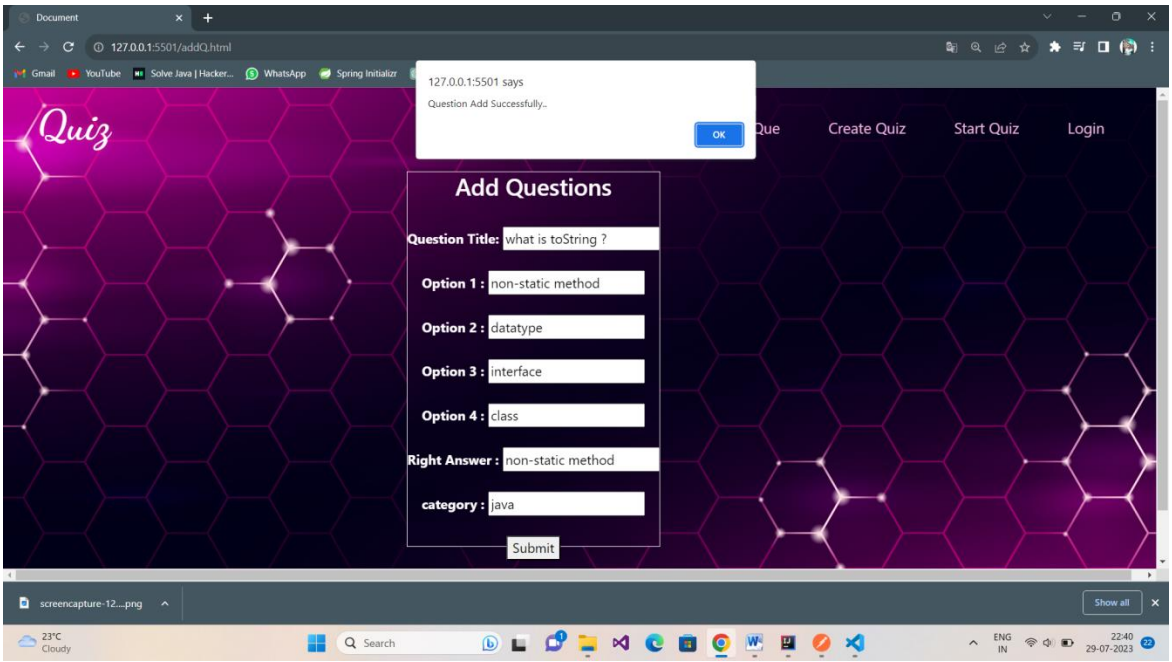
Field Name	Data Type	Constraints
quiz_id	numeric(18, 0)	Allow Null
question_id	varchar(50)	Allow Null

7. INPUTS (FORM LAYOUT)

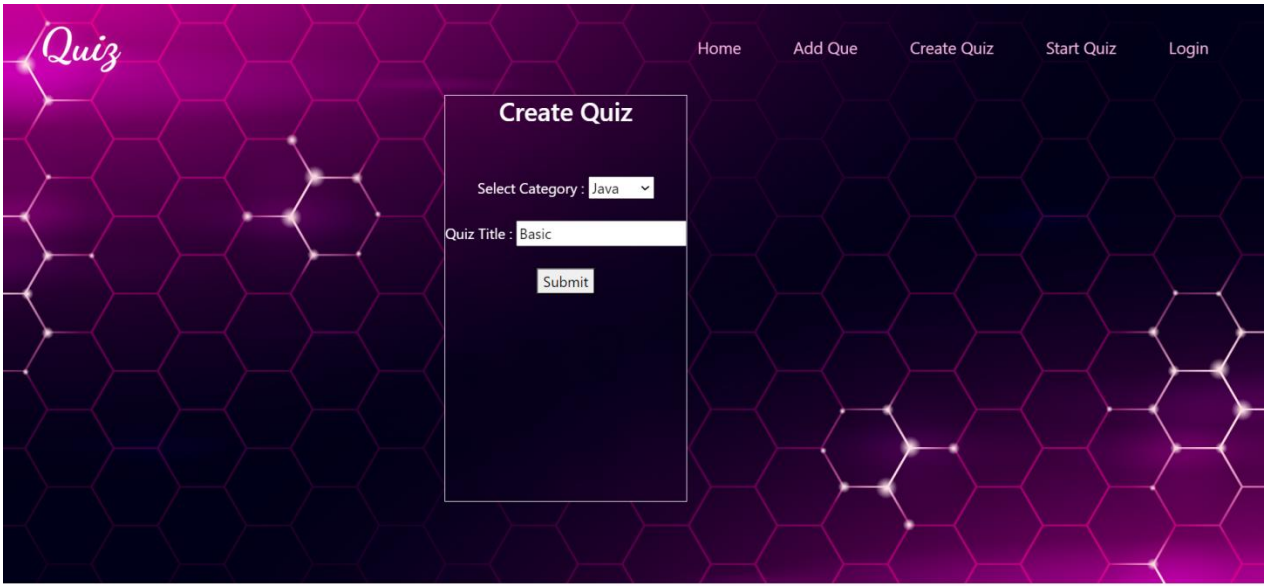
Home Page



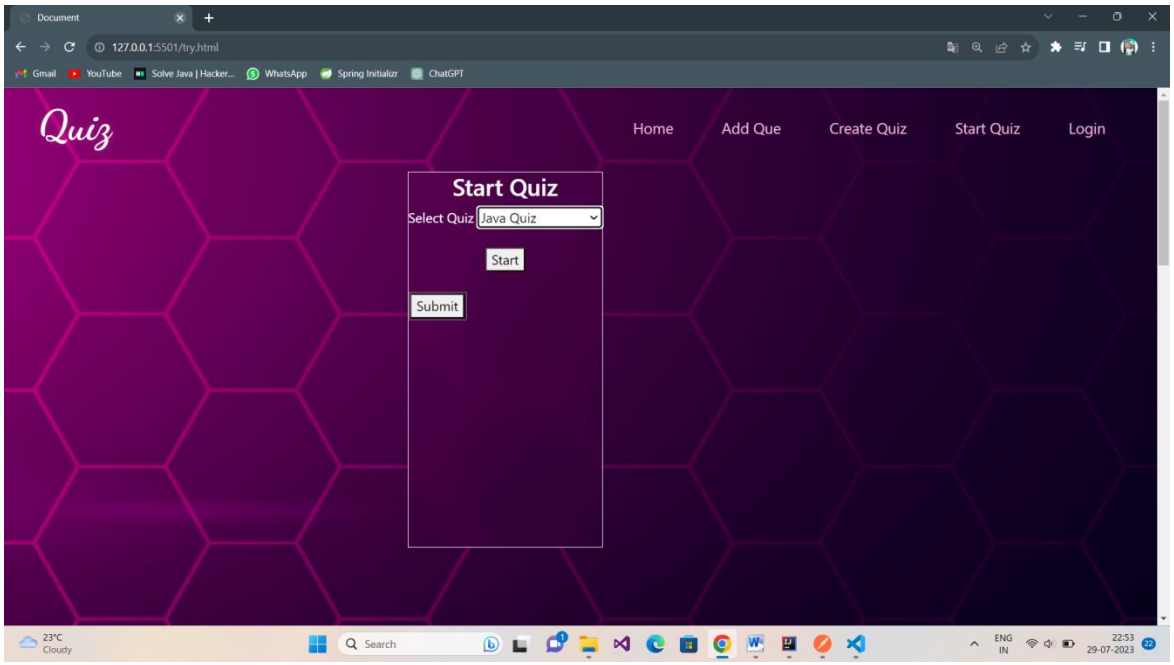
Add Question Page



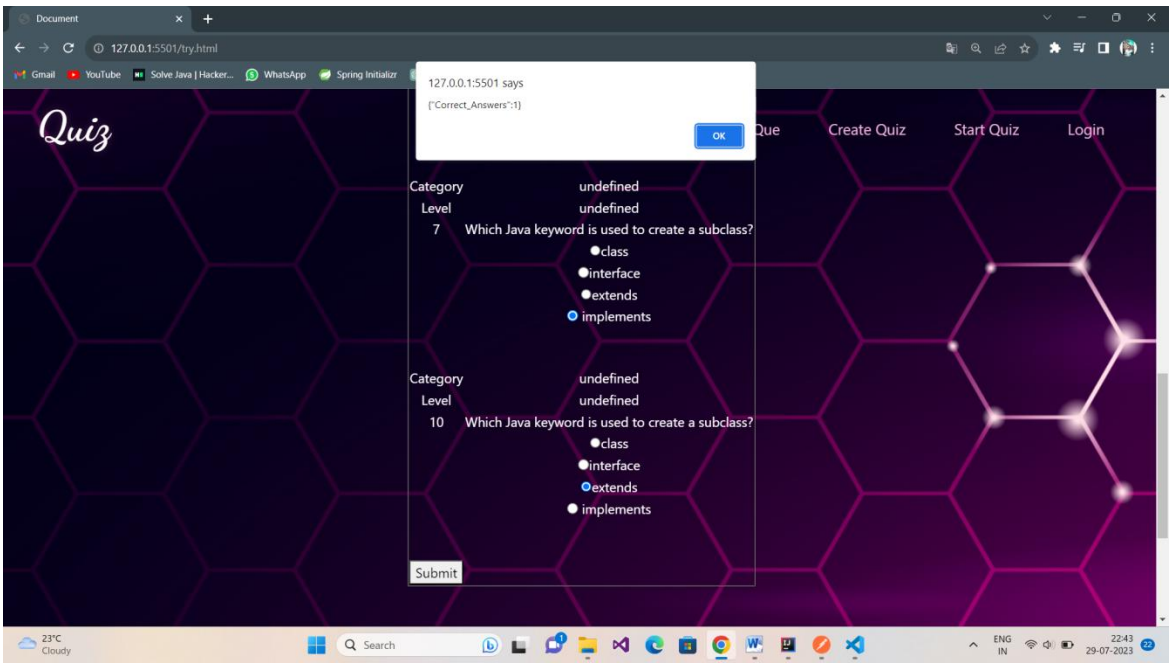
Create Quiz Page



Start Quiz Page




Quiz
Home
Add Que
Create Quiz
Start Quiz
Login
Start Quiz
Select Quiz Java Quiz
Start
Category undefined
Level undefined
1 What is java?
dont know
mahit nahi
kharch nahi
sangat nahi
Category undefined
Level undefined
2 Maximmum value for byte in java?
127
456
852
745
Category undefined
Level undefined
3 Maximmum value for short in java?
127
456
852
75
Category undefined
Level undefined
6 Which Java keyword is used to create a subclass?
class
interface
extends
implements
Category undefined
Level undefined
7 Which Java keyword is used to create a subclass?
class
interface
extends
implements
Category undefined
Level undefined
10 Which Java keyword is used to create a subclass?
class
interface
extends
implements
Submit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127.0.0.1:5501/try.html
Gmail
YouTube
Solve Java | Hacker...
WhatsApp
Spring Initializr
127.0.0.1:5501 says
{"Correct_Answers":1}
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Category undefined
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7 Which Java keyword is used to create a subclass?
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10 Which Java keyword is used to create a subclass?
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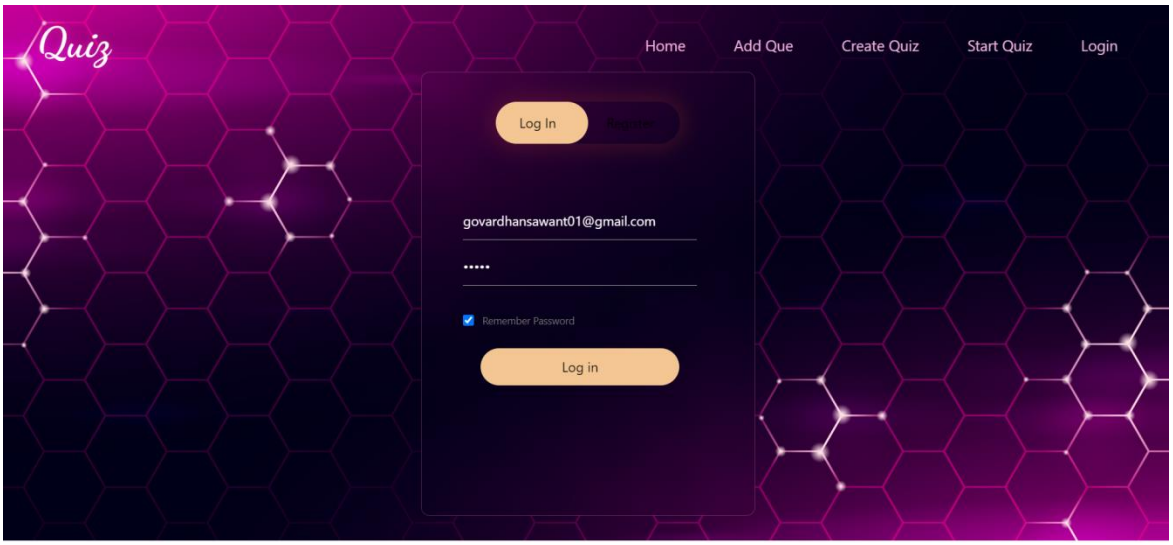
Login Page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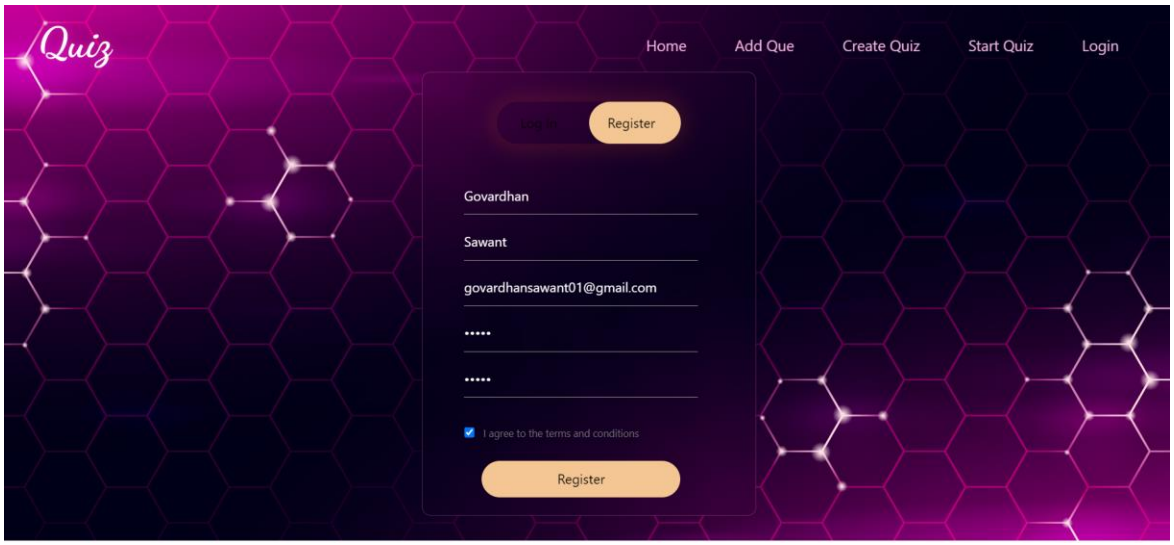
Create Quiz
Start Quiz
Login
Log In
govardhansawant01@gmail.com
Remember Password
Log in

Registration Page



8. USER MANUAL

8.1 Admin Module

The project Quiz Web Application" is developed by using front-end as HTML,Css,JavaScript using and back-end as Spring Boot ,API and Database is My SQL to store the information of their system.

9.OBJECTIVES OF STUDY, SCOPE OF THE SYSTEM AND CONCLUSION:

9.1 OBJECTIVES OF STUDY:

1) To decrease manpower.

2) To make work easy and fast.

3) To keep records for longer duration and make them available whenever needed.

4) To simplify the complication in keeping records.

5) Instead of manual work if we computerize it, it saves lots of time.

6) To provide software that is GUI based application which is easy to operate and is of interactive nature so that even a works highly.

9.3 CONCLUSION:

Our project is only a humble venture to satisfy the needs to manage their project work. Several user friendly coding have also adopted. This package shall prove to be a powerful package in satisfying all the requirements of the school. The objective of software planning is to provide a frame work that enables the manger to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses.Due to computerization we can easily update, delete, or insert the data and hence retrieval of any record that is stored becomes easier.

❖ At the end it is concluded that we have made effort on following points....

- A description of the background and context of the project and its relation to work already done in the area.
- Made statement of the aims and objectives of the project.
- The description of Purpose, Scope, and applicability.
- We define the problem on which we are working in the project.
- We describe the requirement Specifications of the system and the actions that can be done on these things.
- We understand the problem domain and produce a model of the system, which describes operations that can be performed on the system.
- We included features and operations in detail, including screen layouts.
- We designed user interface and security issues related to system.

10. LIMITATIONS OF PROPOSED SYSTEM:

Although I have put my best efforts to make the software flexible, easy to operate but limitations cannot be ruled out even by me. Though the software presents a broad range of options to its users some intricate options could not be covered into it, partly because of logistic and partly due to lack of sophistication. Paucity of time was also major constraint, thus it was not possible to make the software foolproof and dynamic Lack of time also compelled me to ignore some part such as storing old result of the candidate etc.

O Considerable efforts have made the software easy to operate even for the people not related to the field of computers but it is acknowledged that a layman may find it a bit problematic at the first instance. The user is provided help at each step for his convenience in working with the software.

11. BIBLIOGRAPHY

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- ✓ **www.stackoverflow.com**
- ✓ **www.W3Schools.com**
- ✓ **www.google.com**