# A Summer Internship Project Report On

"TESTYOURTHRESHOLD - ONLINE QUIZ SYSTEM"

At/for

## Huda's Technologies, Pune

BY

Ronak Gohil

**MCA** 

[2019-2020]

Under the Guidance of Dr. Anuradha Kanade

**Submitted To** 



In partial fulfillment of the requirement for the award of Degree of

Master in Computer Application (MCA)

**Submitted Through** 

MIT-WPU School of Computer Science, Pune.



#### **Faculty of Science**

### **School of Computer Science**

#### SUMMER INTERNSHIP PROGRAM

### CERTIFICATE

This is to certify that Mr./Ms./Mrs.	Ronak Gohil
Of MIT-WPU School of Computer S	cience has successfully completed the project
work titled	

### TESTYOURTHRESHOLD - ONLINE QUIZ SYSTEM

In partial fulfilment of requirement of the award of MCA prescribed by the MIT World Peace University, Pune, from <u>01-05-2020</u> to <u>30-06-2020</u>.

This project is the record of authentic work carried out by him / her out during the academic year 2019-2020.

## **CERTIFICATE OF COMPLETION**

This is to certify that Mr./Ms./Mrs.	Ronak Gohil
Of MIT-WPU School of Computer S	cience has successfully completed the
project work titled	

### TESTYOURTHRESHOLD - ONLINE QUIZ SYSTEM

In partial fulfilment of requirement of the award of MCA prescribed by the MIT World Peace University, Pune, from <u>01-05-2020</u> to <u>30-06-2020</u>.

This project is the record of authentic work carried out by him / her out during the academic year 2019-2020.

Authorized signature with stamp

## **DECLARATION**

I, Mr./Ms./Mrs	Ronak Gohil	hereby	declare	that
this project is the recor	d of authentic work carried out	by me during	the acad	emic
year <u><b>2019-2020</b></u> . This pr	roject is <b>plagiarism-free</b> and ha	as not been sub	omitted to	any
other University or Ins	titute towards the award of any	degree.		

Signature of the student

(Ronak H. Gohil)

PRNNo: 1132190377

### **ACKNOWLEDGMENT**

In the accomplishment of this project successfully, many people have best owned upon me their blessings and the heart pledged support, this time I am utilizing to thank all the people who have been concerned with project.

The success and final outcome of this project required a lot of guidance and assistance from many people and I am extremely privileged to have got this all along the completion of my project. All that I have done is only due to such supervision and assistance.

My sincere thanks also goes to **Dr. C.H. Patil** for supporting and offering us the Summer Internship Project from the college in this pandemic situation.

I would like to thank **Prof. Surabhi Thatte**, Whose valuable suggestions and instructions has served as the major contributor towards the completion of the project.

I owe my deep gratitude to our internal project guide **<u>Dr. Anuradha Kanade</u>** who took keen interest on our project work and guided us all along, till the completion of our project work by providing all the necessary information.

## TABLE OF CONTENTS

Sr. No	Title	Page No.
1	Introduction	7-12
1.1	Company profile	7
1.2	Existing system and need of system	8
1.3	Scope of work	9
1.4	Operating environment – hardware and software	10
1.5	Description of technology used	11
2	Proposed system	14-24
2.1	Proposed system	13
2.2	Objective of system	14
2.3	Analysis of system	15
2.4	Feasibility study	23
2.5	User requirements	24
3	Analysis and design	26-68
3.01	Object diagram	26
3.02	Class diagram	27
3.03	Use case diagram	28
3.04	Sequence diagram	29
3.05	Activity diagram	31
3.06	Module hierarchy diagram	33
3.07	Component diagram	34
3.08	Deployment diagram	35
3.09	Module specifications	36
3.10	Web site map diagram	38
3.11	User interface design (screens etc.)	39
3.12	Table specifications	64
3.13	Test procedures and implementation (screens etc.)	68
4	Drawbacks and limitations	70
5	Proposed enhancements	71
6	Conclusions	72
7	Bibliography	73

Chapter 1 Introduction

### **COMPANY PROFILE**

**TestYourThreshold** is an online quiz startup of students of MIT-WPU, Pune. TestYourThreshold works by acting as a bridge between students and Exam. It utilizes an innovative technology platform that allows students to nurture themselves for the competitive examinations or for any exam which are online based. With TestYourThreshold, students do not have to keep the different question bank of various publishing company. This has made a lot easier for student to check their preparation before appearing any kind of exam. Students also come across different kind of question which can be asked in the exam.

Name:	TYT-Online Quiz Pvt. Ltd.
Address:	MIT WPU, S.No.124, Paud Road, Kothrud, Pune, Mh-411038
Email:	TestYourThreshold@gmail.com
Contact:	+919988776655

### **Our Moto**

"Lead me from darkness to light."

#### **Our Vision**

"To Improve the Exam-Preparation Technique Of Every Student through giving the Best Environment."

#### EXISTING SYSTEM & NEED OF NEW SYSTEM

### **EXISTING SYSTEM**

The existing system has many drawbacks. The first problem is that there are loads of hard copied documents being generated. This brings us to the age-old discussion of keeping information in the form databases versus keeping the same on sheets of paper. Keeping the information in the form of hard-copied documents leads to the following problems.

- ✓ Lack of space
- ✓ Filing poses a problem
- ✓ Filtering is not easy
- ✓ Reviewing becomes problem

### **Need Of New system**

New system is needed to overcome these drawbacks.

- ➤ Lack of space It becomes a problem in itself to find space to keep the sheets of paper being generated as a result of the ongoing discussion. The documents being generated are too important to be ill-treated.
- > Filing poses a problem Filing the documents categorically is a time consuming and tedious exercise.
- Filtering is not easy It becomes hard to filter relevant documents for the irrelevant ones if the count of the same crosses a certain manageable number.
- ➤ Reviewing becomes problem The students appearing for the competitive exam can't review their answer while practicing a question paper. The Existing system is paper based, time consuming, monotonous, less flexible and provides a very hectic working schedule. The chance of loss of printed question paper is high and also record searching is difficult.

### **SCOPE OF WORK**

Scope of this project is very broad in terms of other manually checking yourself. Few of them are: -

- The main purpose of the system is to efficiently evaluate the candidate thoroughly through a fully automated system that not only saves a lot of time but also gives fast results.
- This can be used in educational institutions as well as in corporate world.
- Can be used anywhere any time as it is a web based application (user Location doesn't matter).
- No restriction that examiner has to be present when the candidate takes the test.
- It is cost-effective and popular means of mass-evaluation system.
- The administrator of the system prepares the test and questions for each exam.
- The candidates can login through their computers after register themselves for quiz and can give the exam.
- It also shows respondents the correct answer so that candidate can review their answers after quiz.

### **OPERATING ENVIRONMENT**

### **Hardware Requirements:**

**Processor:** Intel Core i3 and above

Ram: 4GB and aboveHDD: 256GB and above

### **Software Requirements:**

\* Web Browser: Google Chrome, Mozilla Firefox

Os: Windows, LinuxDatabase: MySQL

### **Tools and Environment used:**

❖ Front End: Html 5, Css 3, JavaScript, Bootstrap 4, JQuery

Back End: PhpDatabase: MySQLWeb Server: AMPPS

#### DESCRIPTION OF TECHNOLOGY USED

### - Php Development Environment:

**AMPPS** is a solution stack of Apache, MySQL, MongoDB, PHP, Perl and Python for Windows NT,Linux and macOS. It comes with 442 PHP web applications, over 1000 PHP classes and 6 versions of PHP. AMPPS is created by Softaculous Ltd. a company founded in 2009 which makes the Softaculous Auto installer. AMPPS is used to develop on PHP, MySQL applications like WordPress, Joomla, and Drupal.

### - MySQL Administration Tool:

**phpMyAdmin** is a free and open source administration tool for MySQL and MariaDB. As a portable web application written primarily in PHP, it has become one of the most popular MySQL administration tools, especially for web hosting services.

Given below are some of the web technologies used for developing the website.

### - <u>PHP:</u>

Hypertext Preprocessor (or simply PHP) is a server-side scripting language designed for Web development, but also used as a general-purpose programming language. It was originally created by Rasmus Lerdorf in 1994, the PHP reference implementation is now produced by The PHP Group. PHP originally stood for Personal Home Page, but it now stands for the recursive acronym PHP: Hypertext Preprocessor.

### - HTML:

Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications. With Cascading Style Sheets (CSS) and JavaScript, it forms a triad of cornerstone technologies for the World Wide Web.

Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

### - **CSS**:

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, and reduce complexity and repetition in the structural content.

### - MySQL:

MySQL, often simply Postgres, is an relational database management system with an emphasis on extensibility and standards compliance. It can handle workloads ranging from small single-machine applications to large Internet-facing applications (or for data warehousing) with many concurrent users; and it is also available for Microsoft Windows and Linux (supplied in most distributions).

### PROPOSED SYSTEM

**ONLINE QUIZ (TestYourThreshold)** is an online based custom quiz application. It provides an user interactive environment and let the user practice quizzes on different topics available in the application. Users have to register themselves to our portal in order to avail quiz services. It contains all the results of the users and users can check their results after logging.

**TestYourThreshold** plans to provide the users a platform which will be useful to them in every fields of their life. They can participate in the quiz and can nurture themselves for the competitive examinations which are online based, regular exams and also examinations for job purposes. They will become accustomed to the e-learning platform.

The IT initiatives have encouraged various Organizations to develop systems to facilitate their day to day operations. The **TestYourThreshold** will include various Courses (IT, Commerce, Science, etc.) and subjects for conducting quizzes. This system helps in conducting examinations quickly and many companies are developing websites solely for the purpose of online education and we are no different.

### FEATURES OF PROPOSED SYSTEM

• **FUNCTIONAL CAPABILITIES:** The ultimate aim of this project is to help the quiz analysis and facilitate the students for easy evaluation of their preparation for different exams.

The system shall display the set of questions with certain rules. It also displays the subject and topic for which the students wish to appear for the exam.

Once the student has completed choosing the subject and topic, they starts answering the questions. The mark is given and result is generated based on the correct answers.

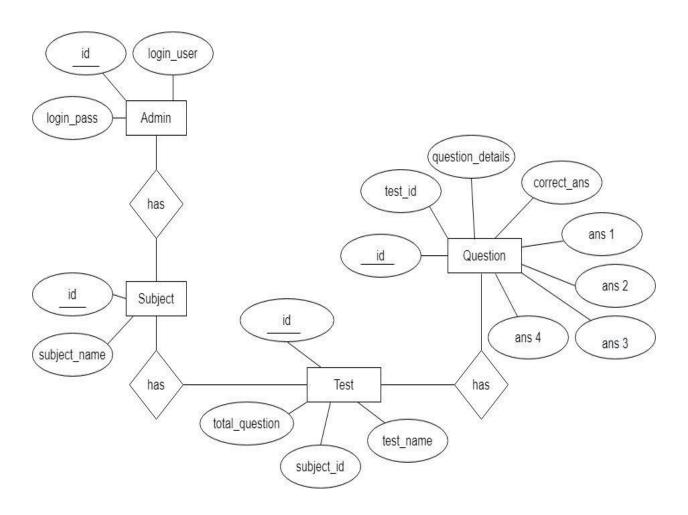
- **PERFORMANCE LEVEL:** The scope of this project gives immense opportunity for the students to know their levels in quiz. It provides effective software so as to help the students as well as the evaluators who are involved in evaluating the student's performance.
- **SAFETY:** No data loss occurs in the quiz system.
  - 1. It is very much protected in such a way that it gives permission to the students to access only when the username and password is correct.
  - 2. The results are produced electronically so that nobody is prone to mistakes.
- **RELIABILITY:** We assure that the project is completely authenticated in order to enhance security and corruptions of database as well as the software. The person is given access only if he/she has a valid username and password.

#### **OBJECTIVE OF SYSTEM**

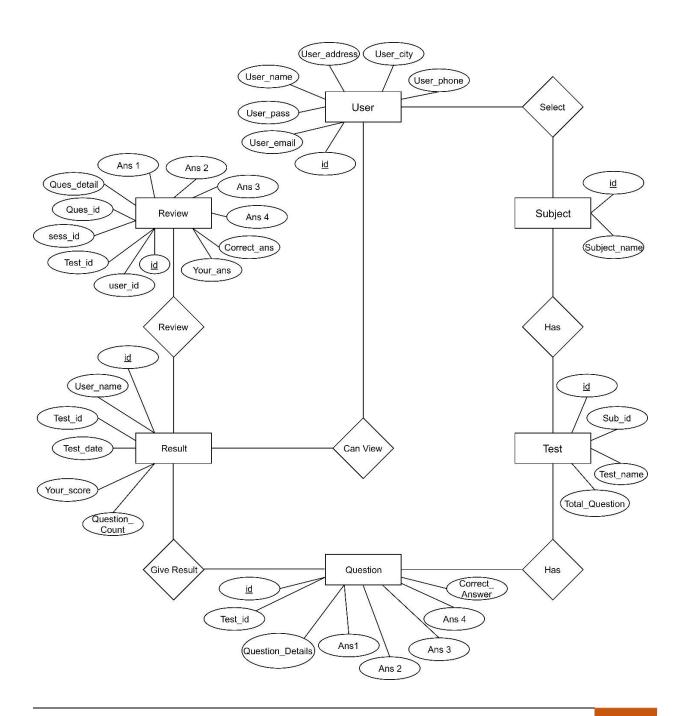
**TestYourThreshold** is a web application to give online test in an efficient manner and no time wasting for waiting for the correct answer. The main objective of the proposed system is to efficiently evaluate the candidate thoroughly through a fully automated system that not only saves lot of time but also gives fast results. For students they give papers according to their convenience and time. This can be used in corporate world and with some update it can also be used in any educational institutions. It Can be used anywhere any time as it is a web-based application (user location doesn't matter).

### **ANALYSIS OF SYSTEM**

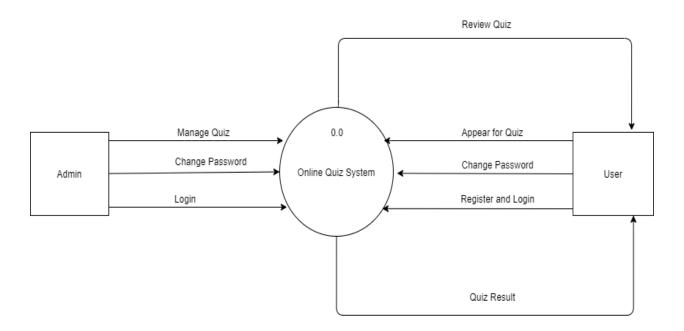
## **ER Diagram For Admin:**



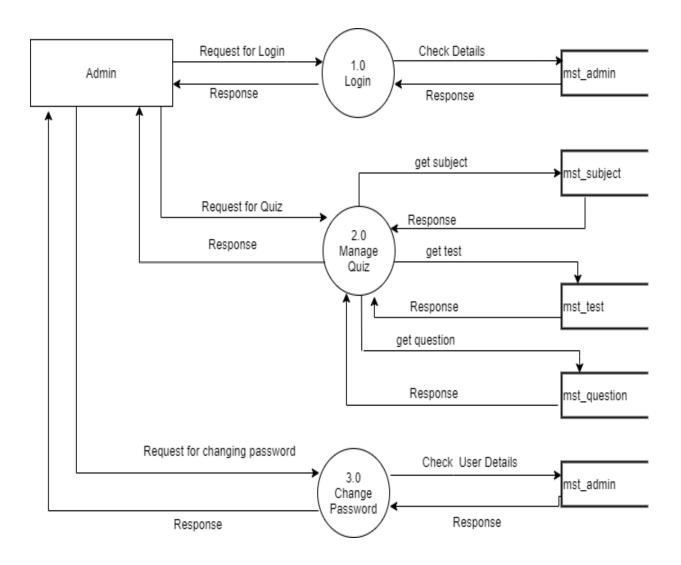
## **ER Diagram For User:**



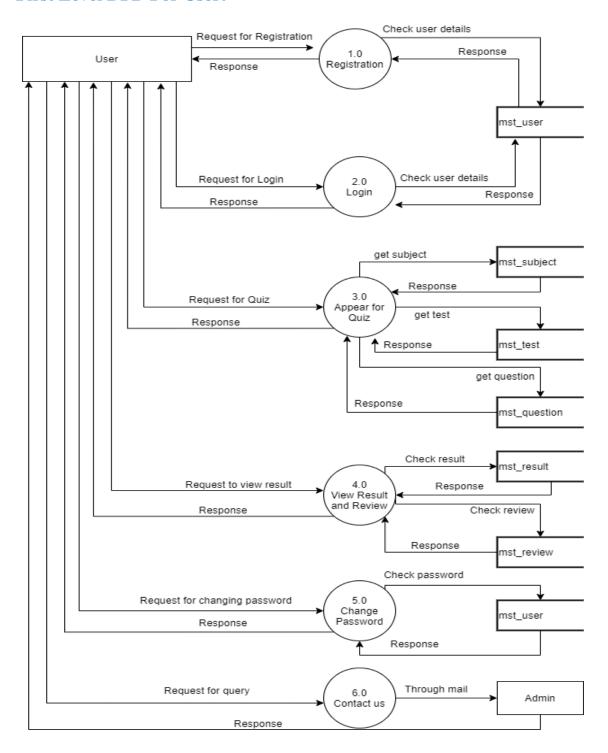
## **Context Level DFD Of The System:**



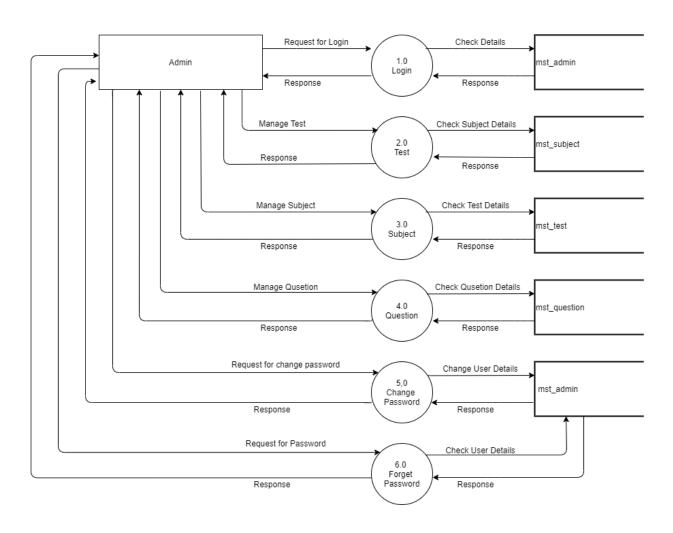
### First Level DFD For Admin:



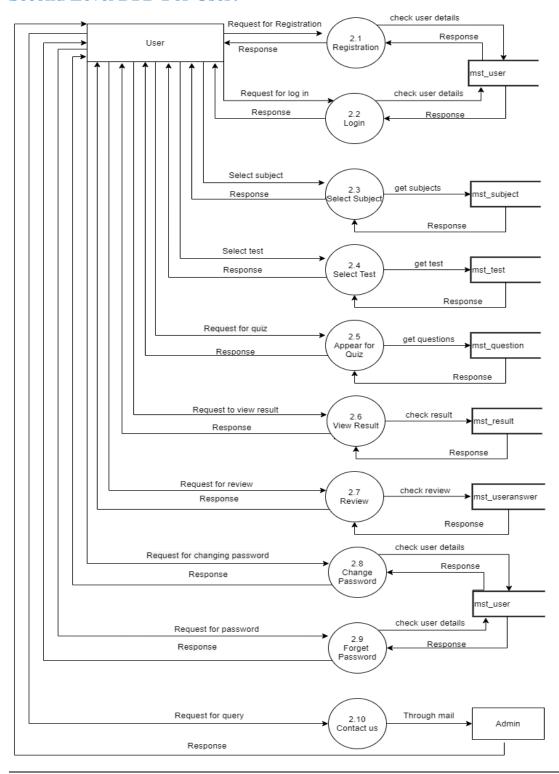
### First Level DFD For User:



### **Second Level DFD For Admin:**



### **Second Level DFD For User:**



### **FEASIBILITY STUDY**

#### **Technical Feasibility:**

The project is technically feasible with the following technologies:

Operating System: Windows Os

Ram: 8GB

Processor: Intel core i7 8<sup>th</sup> generation

System type: x64 bit

Internal Hard disk: 1TB

### **Economical Feasibility:**

Since the proposed sytem is an online system so it's requirement is just online platform (either computer or mobile). Anyone from anywhere can give this quiz . This makes it more economically feasible.

Now, since it just requires a system with internet connection, its investment is much lesser than its income, basically because of which it is more economically feasible.

#### **Operational Feasibility:**

The proposed computerized system solves almost most of the major problems as faced by the existing system, **for e.g.** with this anyone sitting anywhere can give exam easily with basic computer knowledge. The proposed system makes the use of database to store all the questions and their answers that are feeded in the database by the admin and users can take the quiz and can get their instantly.

Initially for a new user the site makes a request for making/registering to our website, which includes accepting some personal details such as name, email, age, gender, etc. Thus we can say that the system initially accepts the registration details, then the login details and so on, as its input.

### **USER REQUIREMENTS**

### Registration -

Description: To appear for the quiz, user has to register themselves first.

Input: User's Name, Phone No., Password, Email ID, Address, City

Output: Registration Successful!! Please Login.

Processing: User details are checked as per the validation and get stored in the database.

#### Login –

Description: After registering suucessfully, user has to login to appear for the quiz.

Input: User's Email ID, Password

Output: Successfully logged in.

Processing: User details are matched with the database. They can do successful login if it is correct else proper error message gets displayed.

### Change Password -

Description: For security purpose registered user can change their password after login.

Input: User's Old password, New Password, Confirm New Password

Output: Password changed successfully !!

Processing: Old password is matched with the database, they can change password only if it gets matched else proper error message gets displayed. New password is checked as per the validation and get stored in the database.

### Forgot Password -

Description: User get a temporary randomly generated password through mail which can be used to login.

Input: User's Email Id

Output: Instruction to change password sent to mail.

Processing: A randomly generated password is sent to the given email id which can be used to login and change the password after login. Each time the password gets updated in the database.

### Admin Login -

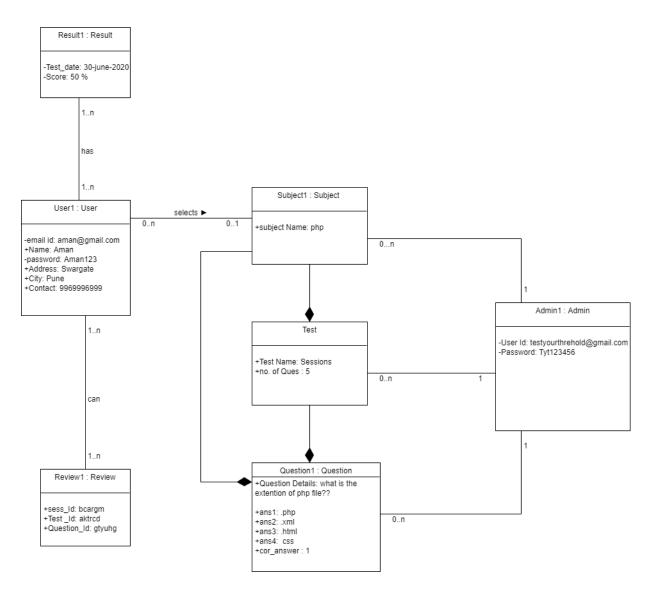
Description: User has to login for managing the quiz.

Input: Admin's Email ID, Password

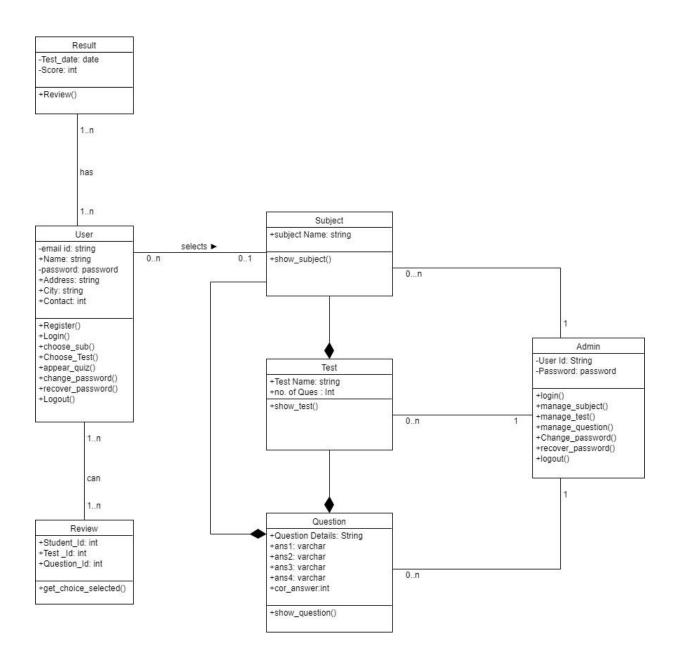
Output: Successfully logged in.

Processing: User details are matched with the database. They can do successful login if it is correct else proper error message gets displayed.

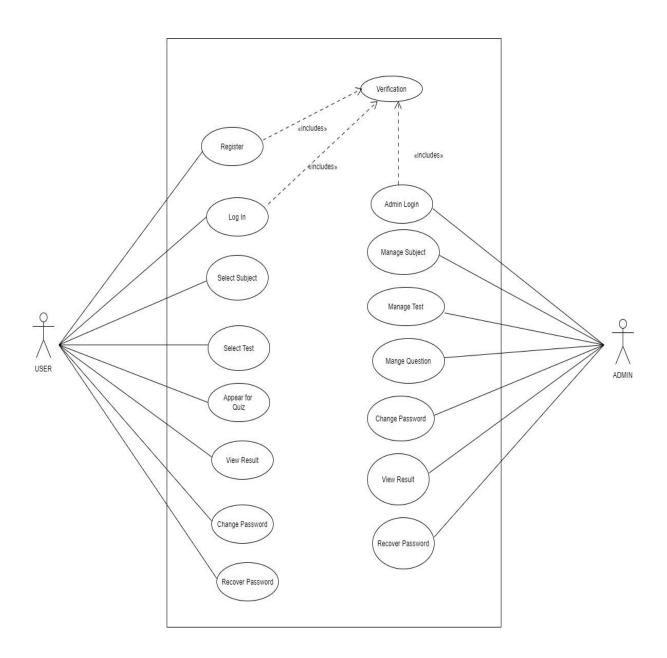
### **OBJECT DIAGRAM**



### **CLASS DIAGRAM**

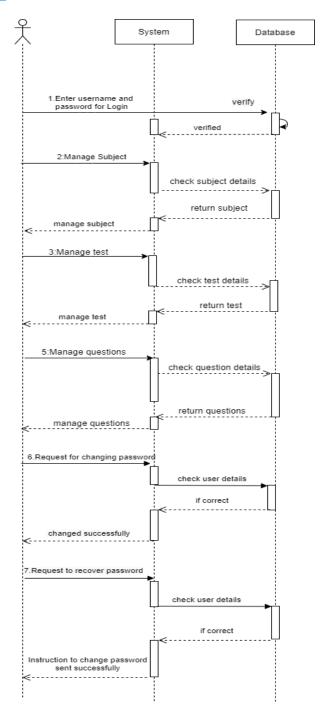


### **USE CASE DIAGRAM**

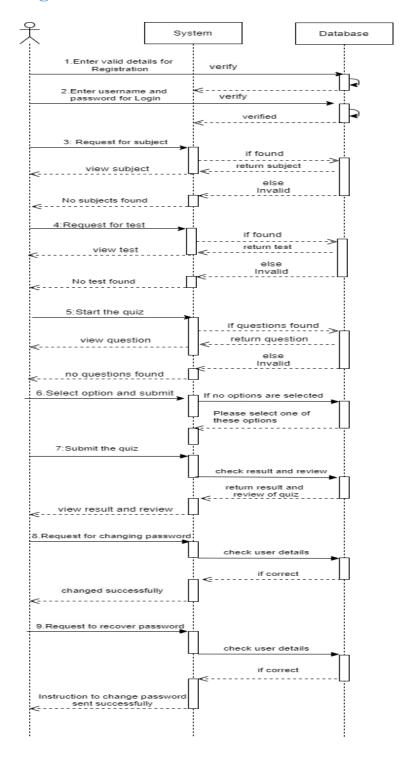


## SEQUENCE DIAGRAM

## **Sequence Diagram For Admin**

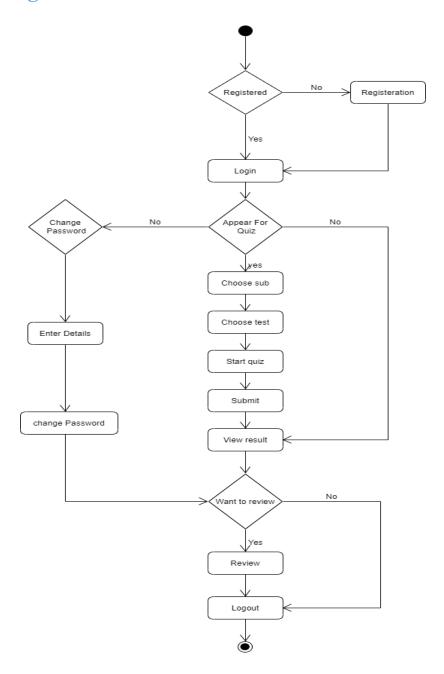


## **Sequence Diagram For User**

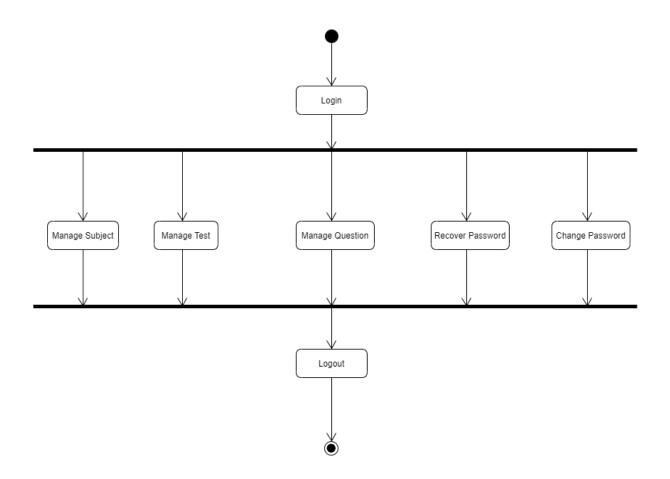


### **ACTIVITY DIAGRAM**

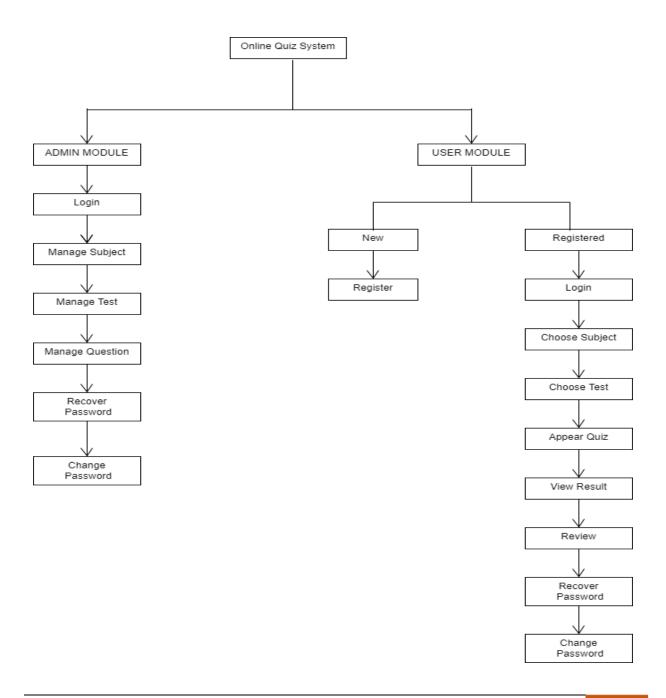
## **Activity Diagram For User**



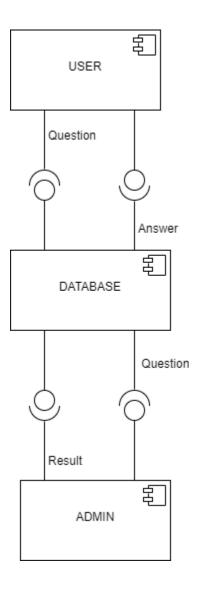
## **Activity Diagram For Admin**



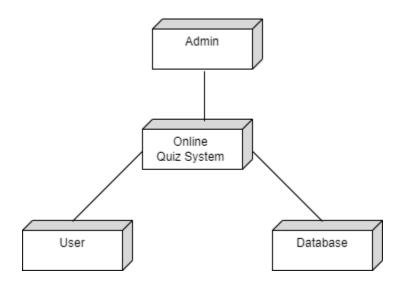
### MODULE HIERARCHY DIAGRAM



### **COMPONENT DIAGRAM**



## **DEPLOYMENT DIAGRAM**



### **MODULE SPECIFICATION**

#### Modules:

- **4** Admin Module
- **↓** User Module

#### Admin Module:

- Login
- · Forgot and Change Password
- Manage Quiz
- Solve User Query/Problem

Login: After successful login the admin can change and view the inner details of the system.

Forgot and Change Password: For security purpose or any other reason admin can change its password and also can recover password through mail if he is unable to login.

Manage Quiz: Admin can view/Add/Modify/Delete subjects, Tests, and Questions according to his opinion.

Solve User Query: Admin give response to the user's query via mail.

#### User Module:

- Register
- Login
- Appear for Quiz
- Result
- Review
- Forgot and Change Password
- Contact Admin

Register: To be authenticated user have to register first.

Login: The registered user can be allowed to login with valid Email Id and Password to appear for the quiz.

Appear For Quiz: User can select the subject and test to appear according to their opinion.

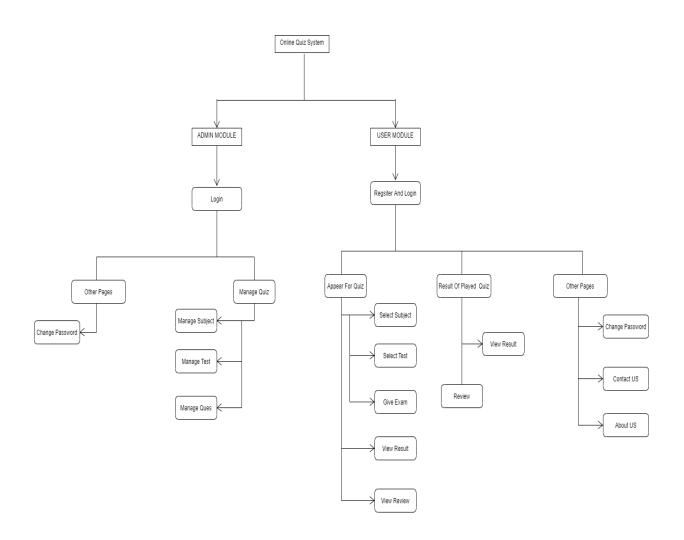
Result: User can see the result after successfully submitting the quiz. They can also see the previously played quiz whenever they want.

Review: User can review the played quiz. They can also review the previously played quiz whenever they want.

Forgot and Change Password: For security purpose or any other reason user can change its password and also can recover password through mail if he is unable to login.

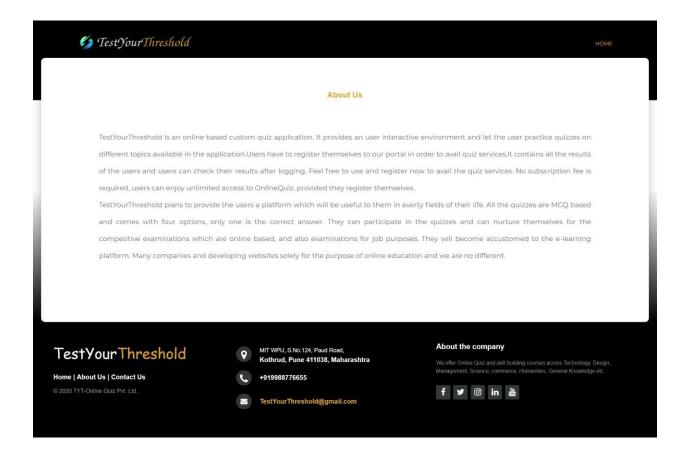
Contact Admin: For any query or problem regarding the application the user contact admin via Contact Us.

#### WEBSITE MAP DIAGRAM

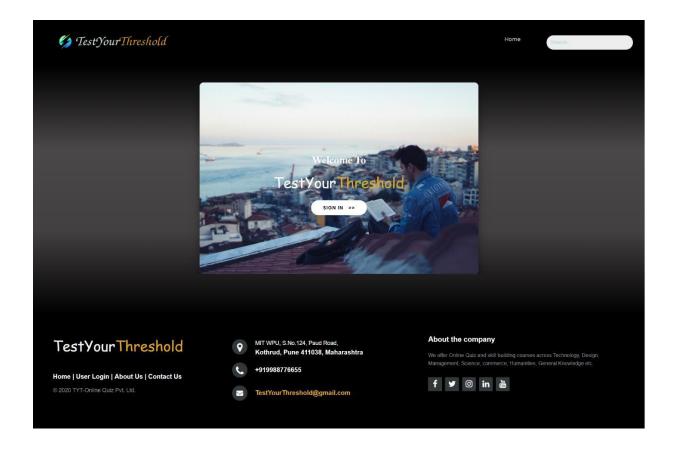


#### **USER INTERFACE DESIGN**

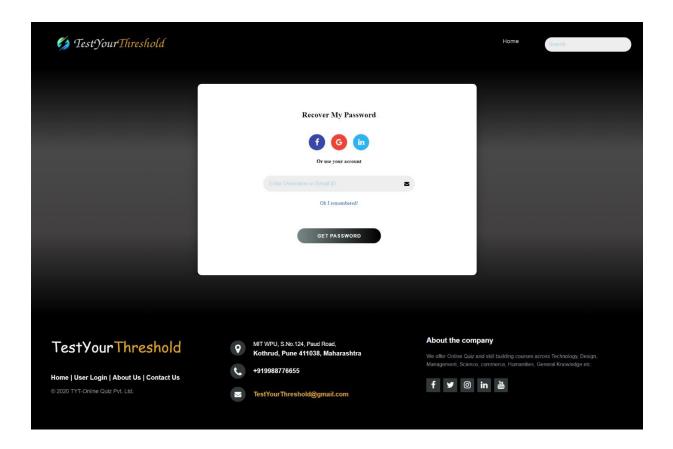
#### About Us Page:



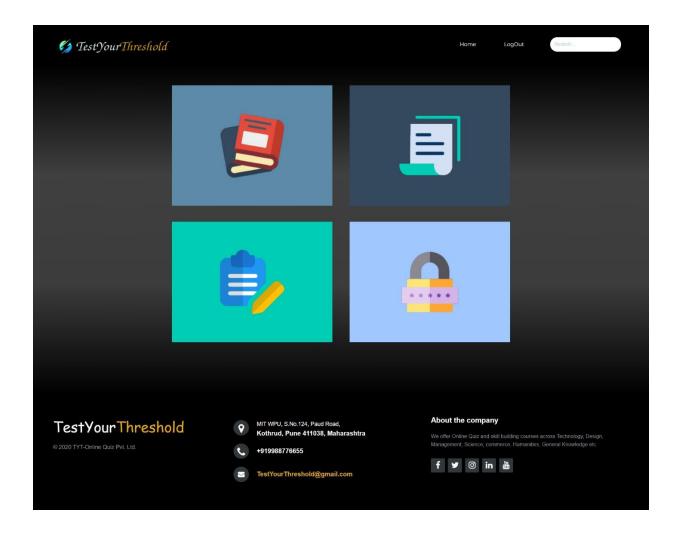
# **Admin Login Page:**



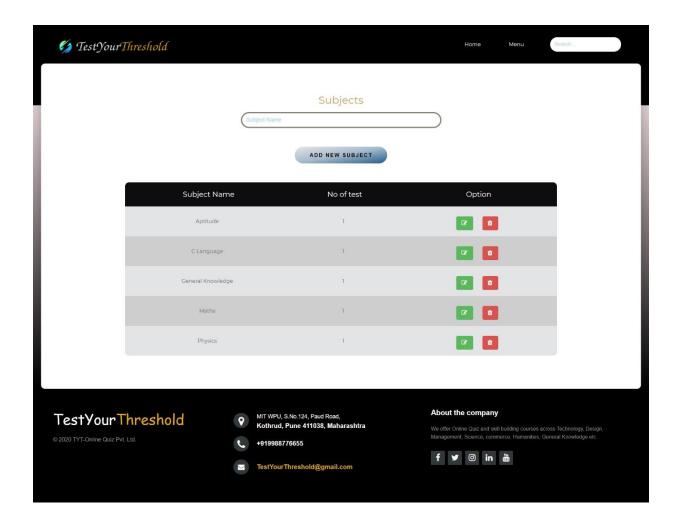
## **Admin Login Page:**



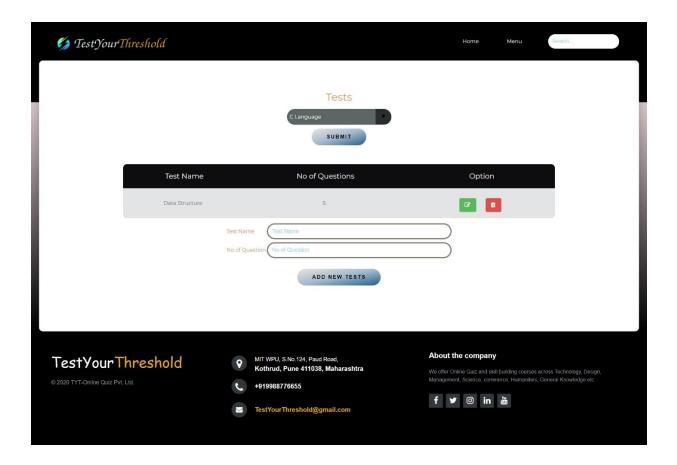
# **Admin Dashboard:**



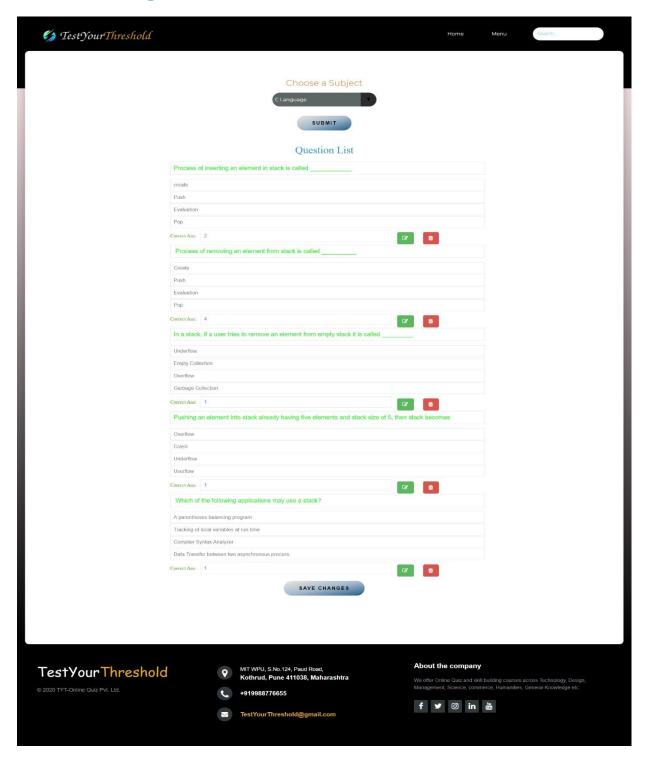
## **Admin – Manage Subject:**



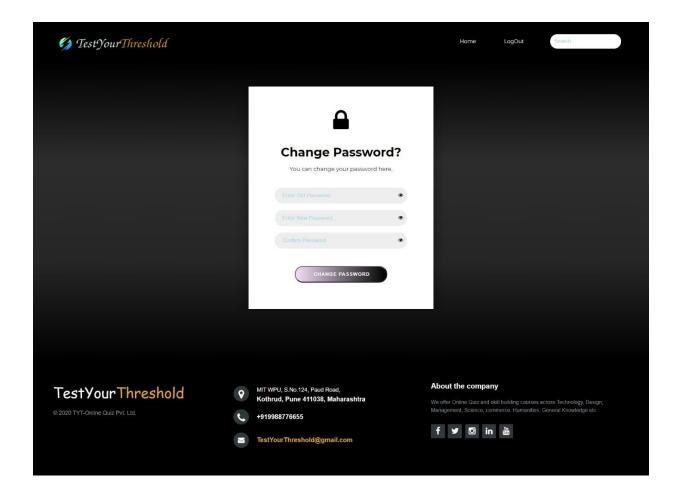
## **Admin – Manage Test:**



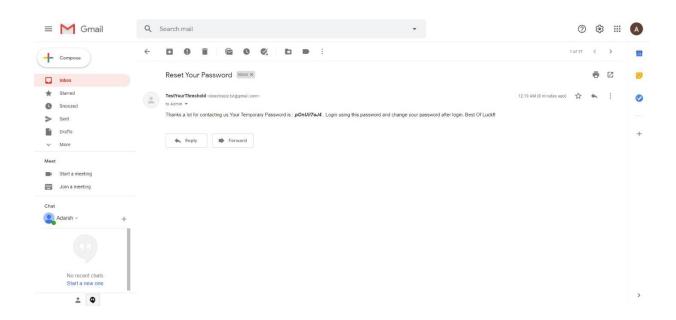
## **Admin – Manage Question:**



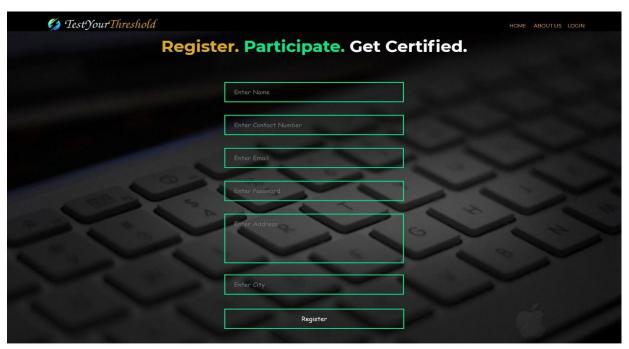
## **Admin – Change Password:**



# **Admin – Recovery Password Mail:**



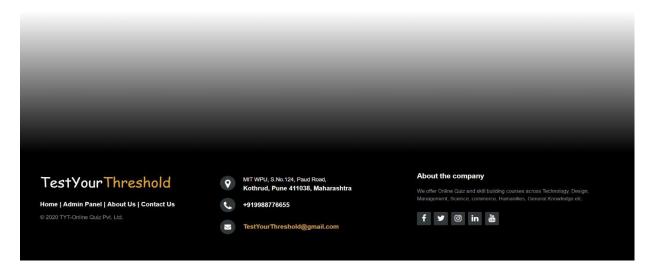
#### **User Home Page:**



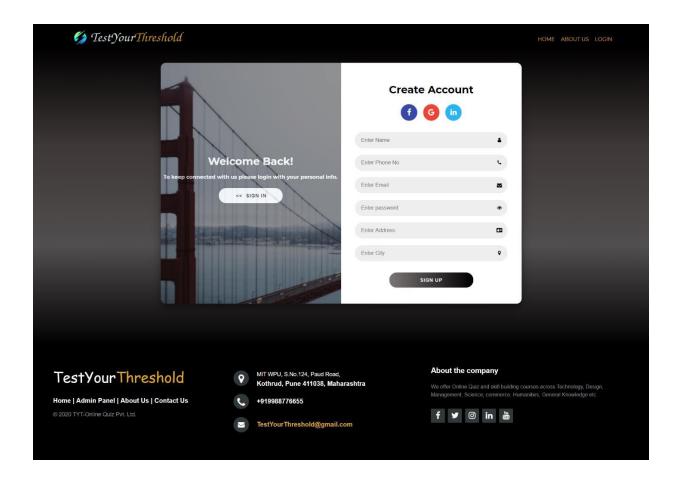
About Us

OnlineQuiz is an online based custom quiz application. It provides an user interactive environment and let the user practice quizzes on different topics available in the application. Users have to register themselves to our portal in order to avail quiz services. It contains all the results of the users and users can check their results after logging. Feel free to use and register now to avail the quiz services. No subscription fee is required, users can enjoy unlimited access to OnlineQuiz, provided they register themselves.

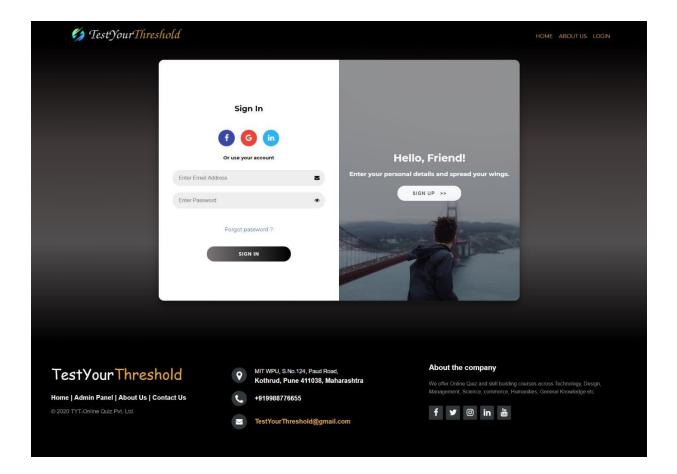
More About Us  $\rightarrow$ 



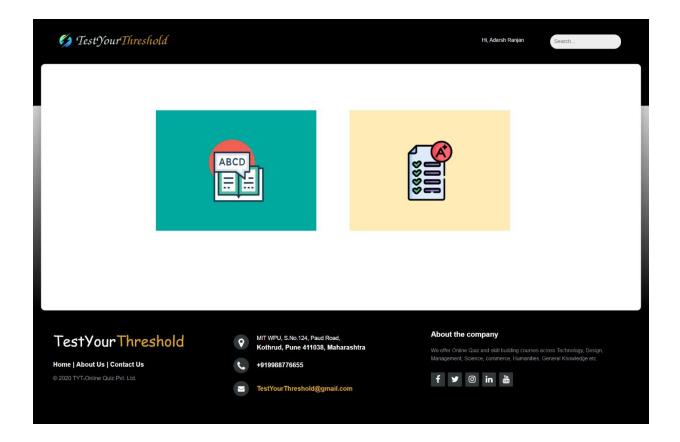
## **User Registration Page:**



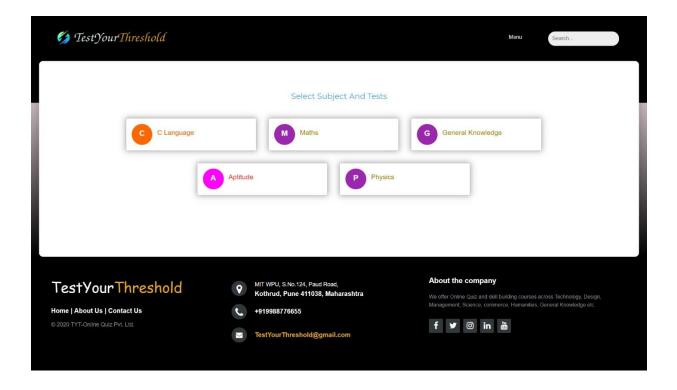
# **User Login Page:**



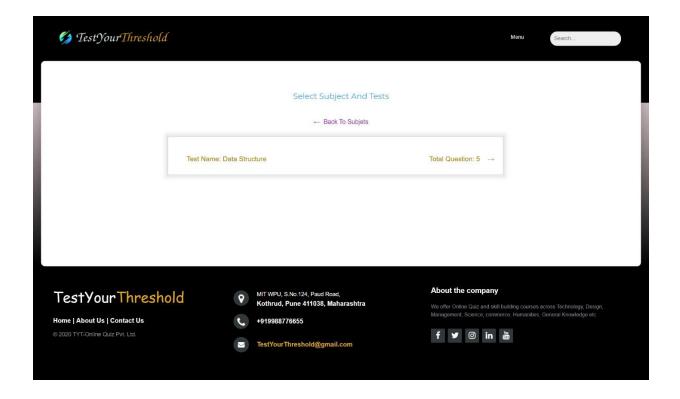
#### **User Dashboard:**



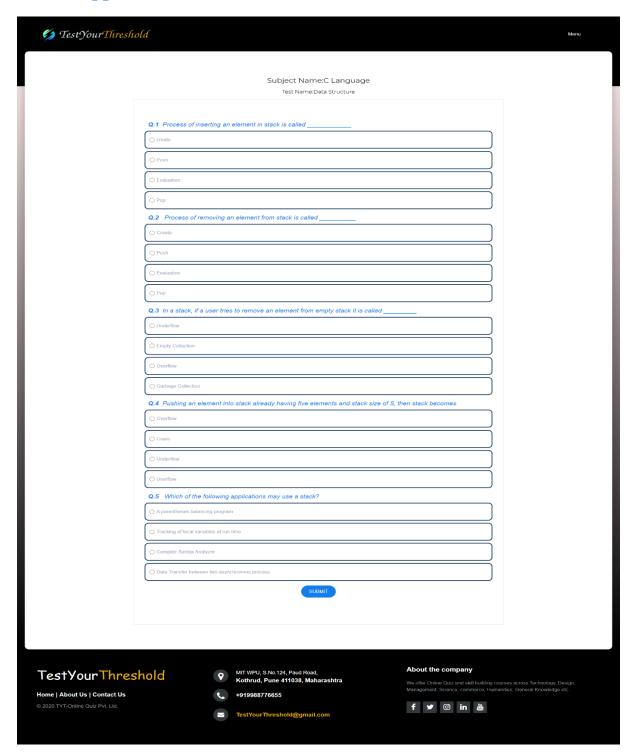
# **User – Select Subject:**



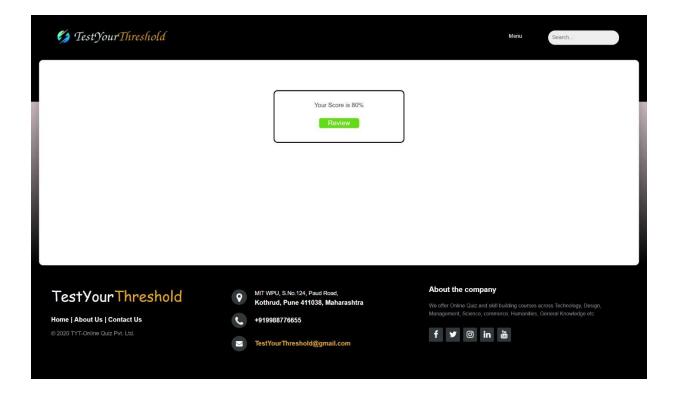
# **User – Select Test From Selected Subject:**



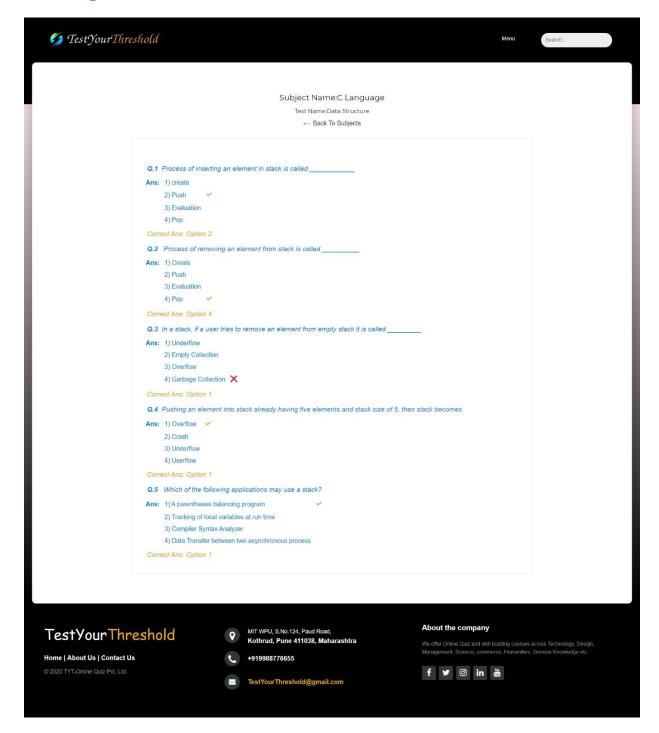
#### **User – Appear For Quiz:**



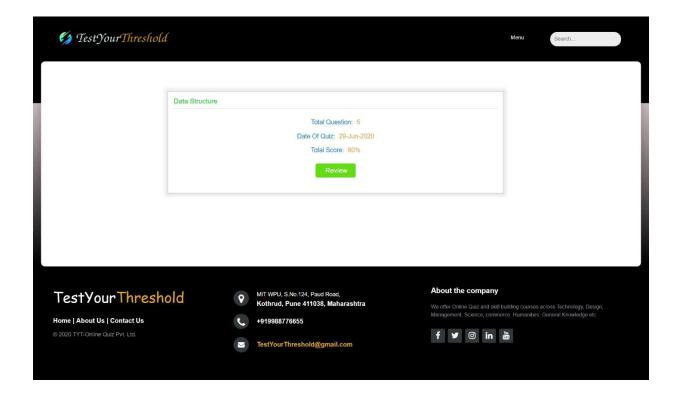
## **User – Quiz Result:**



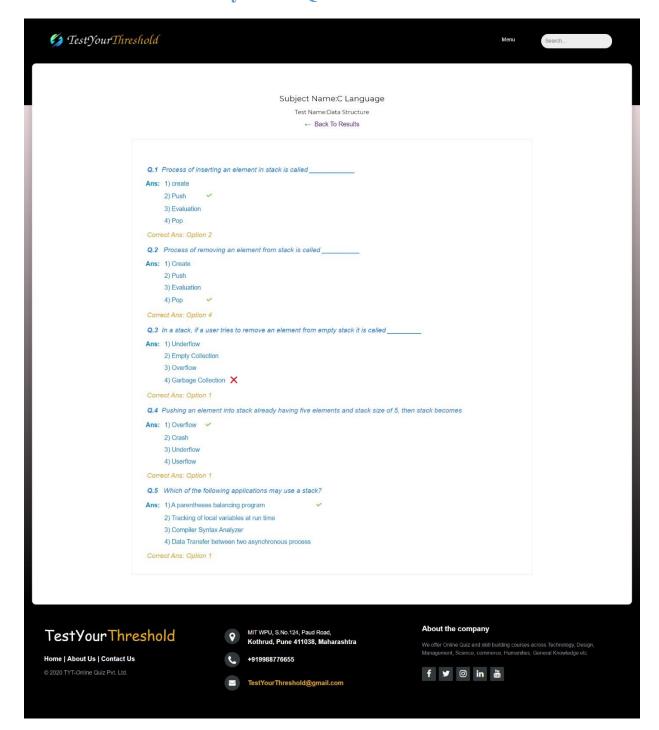
#### **User - Quiz Review:**



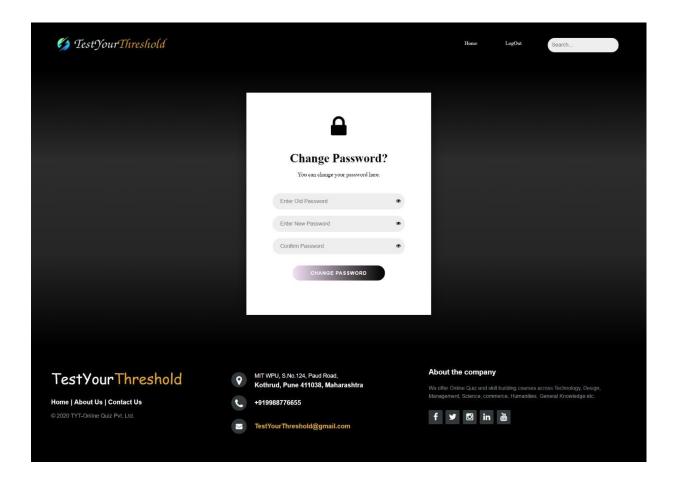
# **User - Result Of Previously Given Quiz:**



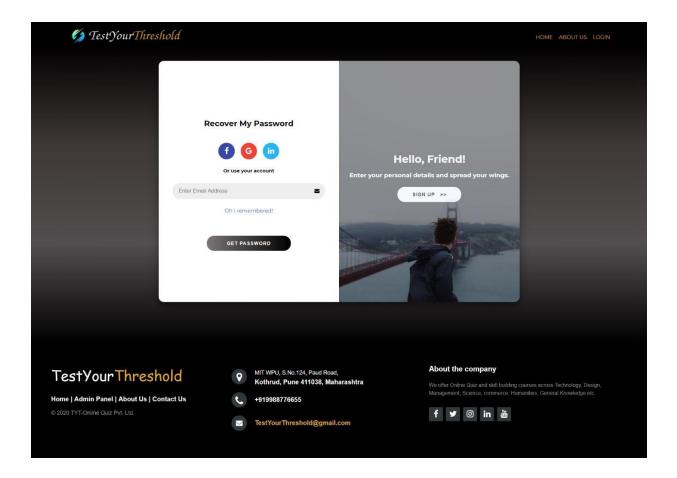
#### **User – Review Previously Given Quiz:**



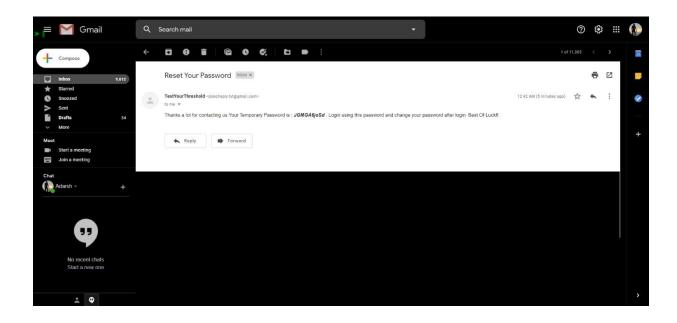
#### **User – Change Password:**



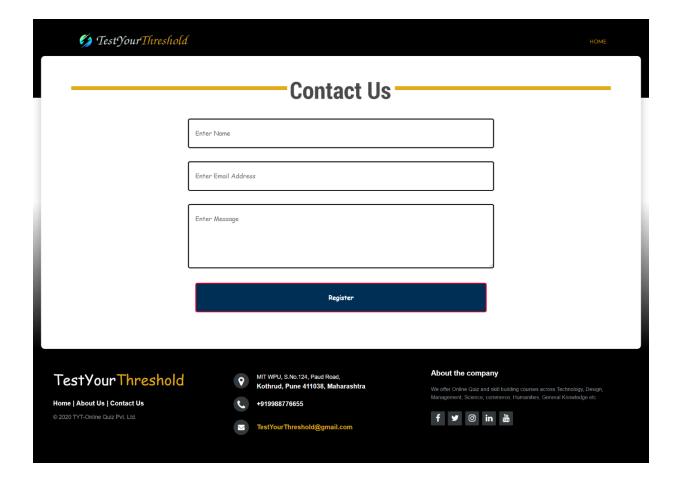
# **User – Forgot Password:**



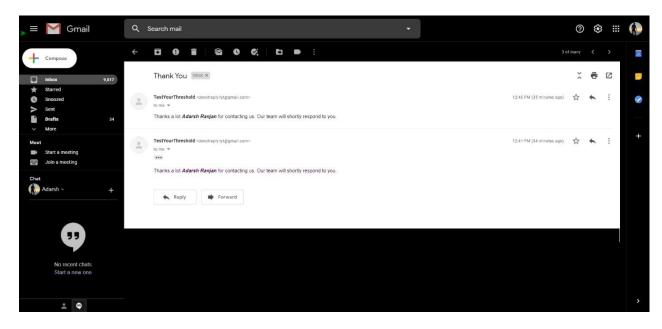
#### **User – Recover Password Mail:**



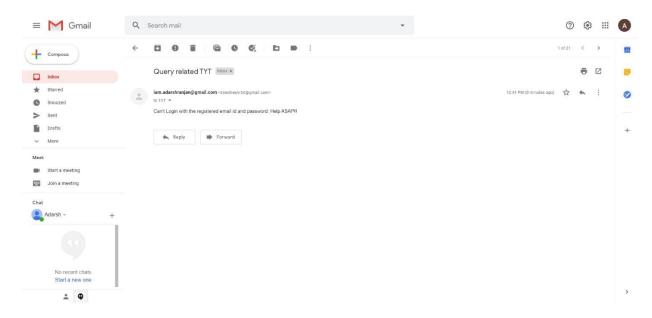
#### **User – Contact Admin:**



#### Admin Response Mail Regarding User's Query:



#### Admin - Mail Regarding User Query:



# TABLE SPECIFICATION

# TABLE 1: mst\_admin

Field name	Field type	Description
Id	integer	(Primary key)
Login_user	varchar(50)	Not null
Login_pass	varchar(50)	Not null

# **TABLE 2: mst\_question**

Field name	Field type	Description
Id	Int	primary key
Test_id	varchar(10)	Not null
Question_details	text	Not null
Ans1	varchar(50)	Not null
Asn2	varchar(50)	Not null
Ans3	varchar(50)	Not null
Ans4	varchar(50)	Not null
Correct_ans	Int	Not null
Enable	tinyint	Not null, default'1'

TABLE 3: mst\_result

Field name	Field type	Description
Id	Int	primary key
User_name	varchar(50)	Not null
Test_id	Int	Not null
Test_date	varchar(50)	Not null
Your_score	Int	Not null
Ques_count	Int	Not null

TABLE 4: mst\_subject

Field name	Field type	Description
Id	Int	Primary key
Sub_name	varchar(50)	Not null
Enable	tinyint	Not null, default'1'

TABLE 5: mst\_test

Field name	Field type	Description
Id	Int	Primary key
Sub_id	varchar(50)	Not null
Test_name	varchar(50)	Not null
Total_question	varchar(50)	Not null
Enable	tinyint	Not null, default'1'

## TABLE 6: mst\_user

Field name	Field type	Description
Id	Int	primary key
User_email	varchar(50)	Not null
User_pass	varchar(50)	Not null
User_name	varchar(50)	Not null
User_address	varchar(50)	Not null
User_city	varchar(50)	Not null
User_phone	Varchar(10)	Not null

**TABLE 7: mst\_useranswer** 

Field name	Field type	Description
Id	Int	primary key
User_id	Int	Not null
Sess_id	varchar(30)	Not null
Test_id	Int	Not null
Ques_id	Int	Not null
Ques_details	text	Not null
Ans1	varchar(50)	Not null
Ans2	varchar(50)	Not null
Ans3	varchar(50)	Not null
Ans4	varchar(50)	Not null
Correct_ans	Int	Not null
Your_ans	Int	Not null

#### TEST PROCEDURE AND IMPLEMENTATION

Testing is a process of executing a program with the intent of finding an error or bugs. Testing is a crucial element of software quality assurance and presents ultimate review of specification, design and coding. System Testing is an important phase. Testing represents an interesting anomaly for the software. Thus a series of testing are performed for the proposed system before the system is ready for user acceptance testing.

Testing is a set of activities that can be planned in advance and conducted systematically testing requires that the developer discard preconceived notations of the correctness of the software just developed and overcome a conflict of interest that occurs when errors are encountered. Testing is a process of technical investigation, performed on behalf of stakeholder. Testing can be stated as the process of validating and verifying of a software program/application/product.

#### **Testing Objectives:**

- Testing is a process of executing a program with the intent of finding an error.
- A good test case is one that has a probability of finding an as yet undiscovered error.
- A successful test is one that uncovers an undiscovered error.

#### **Testing Principles:**

- All tests should be traceable to end user requirements.
- Tests should be planned long before testing begins.
- Testing should begin on a small scale and progress towards testing in large.
- Exhaustive testing is not possible.
- To be most effective testing should be conducted by a independent third party.

Test configuration includes test plan and test cases and test tools. Tests are conducted and all the results are evaluated. That is test results are compared with expected results. When erroneous data are uncovered, an error is implied and debugging commences.

The primary objective for test case design is to derive a set of tests that has the highest livelihood for uncovering defects in software. To accomplish this objective two different categories of test case design techniques are used. They are

- ✓ White box testing.
- ✓ Black box testing.

#### White-box testing:

White box testing focus on the program control structure. Test cases are derived to ensure that all statements in the program have been executed at least once during testing and that all logical conditions have been executed.

#### **Block-box testing:**

Black box testing is designed to validate functional requirements without regard to the internal workings of a program. Black box testing mainly focuses on the information domain of the software, deriving test cases by partitioning input and output in a manner that provides through test coverage. Incorrect and missing functions, interface errors, errors in data structures, error in functional logic are the errors falling in this category.

- Monthly maintenance cost is too high.
- The web application can only be useful for the user who is having proper internet connection.
- The proposed web application don't have registration system for new admin.

- ✓ Faster processing of information as compared to current system.
- ✓ We will try to improve our data security.
- ✓ We will provide the registration system for new admin which will be managed by a Super Admin.
- ✓ With few update we will provide the description of each wrong answer to the user in Quiz Review.
- ✓ The web application can be easily installed at any institute with some updates.
- ✓ The institute will use the web application for their regular online exam or for surprise test on any topic.
- ✓ The enhancement that we can add the searching option. The admin can directly search to the particular student details from this site to get the data of any student.
- ✓ We can also provide the user an edit option to edit their registered information.

Chapter 6 Conclusion

**TestYourThreshold** provides facility to conduct online quiz world wide. It saves time as it allows number of students to appear for the quiz at a time and displays the results as the test gets over, so no need to wait for the result. It is automatically generated by the server. Students can review their quiz after successful submitting the quiz. They can review and see the result of previously played quiz anytime with just a click. Administrator has a privilege to create, modify and delete the test papers and its particular questions. User can register, login and give the test with his specific id, and can see the results as well.

- ➤ MySQL documentation
- > PHP manual
- > Javascript documentation
- > Stack overflow