**A picture containing text, sign

Description automatically generated**

**MADAN MOHAN MALAVIYA UNIVERSITY OF TECHNOLOGY, GORAKHPUR**

**MCA-125**

**OOAD Project Synopsis**

**On**

QuizzBizz-Online Quiz System

Under Guidance

Of

**Shri. Rajendra Kumar Dwivedi**

(Associate Prof. IT & CA)

Submitted By

Aman Kumar Gupta

(2019104007)

Session 2020-2021

**DECLARATION**

I affirm that the OOAD project work titled **“QuizzBizz-Online Quiz System”** being submitted in partial fulfillment for the award of **Master of Computer Applications** is the original work carried out by me. It has not formed the part of any other project work submitted for award of any degree or diploma, either in this or any other University.

(Signature of the Candidate)

Aman Kumar Gupta

2019104007

**ABSTRACT**

I developed this project to organise Quiz through online mode. In present system everything is done manually, quiz organiser’s need to maintain books to store information like student details, course details, question paper, result etc. It is very difficult to maintain all data manually, also in current situation when students cannot appear in exams physically due to covid-19 pandemic, it is difficult to evaluate and organise test.

The aim of the project is to organise quiz through online mode and to evaluate student. The administrator, instructor, student who are attending quiz can connect through this project, thus facilitating effective implementation and monitoring of various activities of online examination like conducting examination as per scheduled and delivering result to that user or student.

|  |  |  |
| --- | --- | --- |
| S.No. | Index | Page No. |
| Chapter 1 | **INTRODUCTION** | **5-7** |
| 1.1 | Introduction | 5 |
| 1.2 | Aim | 5 |
| 1.3 | Existing System | 5 |
| 1.4 | Proposed System | 5 |
| 1.5 | Feasibility Study | 6-7 |
| 1.6 | Scope | 7 |
| 1.7 | Project Category | 7 |
| Chapter 2 | **SOFTWARE REQUIREMENTS SPECIFICATION** | **8** |
| Chapter 3 | **ANALYSIS** | **9-11** |
| 3.1 | Data Flow Diagram (DFD) | 9-10 |
| 3.2 | Use Case Diagram | 11 |
| Chapter 4 | **STRUCTURE** | **12-13** |
| Chapter 5 | **TESTING** | **14** |
| Chapter 6 | **CONCLUSION AND FUTURE ENHANCEMENT** | **15** |

**CHAPTER 1: INTRODUCTION**

* 1. **INTRODUCTION**

This system is named as QuizzBizz-Online Quiz System. This system is designed with the purpose of allowing students to give exams and to view their result. This is an attempt to remove existing flaws in the manual system of conducting exams. Students are provided the flexibility of

to choose among different types of tests.

* 1. **AIM**

QuizzBizz Online Quiz System focus on creating effective assessment questions and focusing on exam’s feedback delivery to students. In the paper we present techniques that are pertinent to the elements of assessment process: answers submission, computerized grading, and feedback after submission.

As the modern organizations are automated and computers are working as per the instructions, it becomes essential for the coordination of human beings, commodity and computers in a modern organization.

The administrators, instructor, students who are attending for online examination can communicate with the system through this project, thus facilitating effective implementation and monitoring of various activities of online examinations like conducting exams as per scheduled basis and delivering result to that user student and the details of students who attempted Online Examination are maintained at administrator.

* 1. **EXISTING SYSTEM**

Existing system is manual one in which users are maintaining books to store the information like student details, instructor details, schedule details and feedbacks about students who attempted exam as per schedule. It is very difficult to maintain historical data.

* 1. **PROPOSED SYSTEM**

This application is used to conduct online quiz. The students can sit at individual terminals and login to take quiz. The questions must be given to the students. This application will perform correction, display the result immediately and also store it in database. This application provides the administrator with a facility to add new exams. This application provides the Instructor add questions to the exam, modify questions in the exam in a particular exam. This application takes care of authentication of the administrator, instructor as well as the student.

* 1. **FEASIBILITY STUDY**

A feasibility study is a high-level capsule version of the entire System analysis and Design Process. The study begins by classifying the problem definition. Feasibility is to determine if it’s worth doing. Once an acceptance problem definition has been generated, the analyst develops a logical model of the system. A search for alternatives is analysed carefully. There are 3 parts in feasibility study.

1) Operational Feasibility

2) Technical Feasibility

3) Economical Feasibility

* + 1. **OPERATION FEASIBILITY**

Operational feasibility is the measure of how well a proposed system solves the problems and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development. The operational feasibility assessment focuses on the degree to which the proposed development projects fits in with the existing business environment and objectives about development schedule, delivery date, corporate culture and existing business processes. To ensure success, desired operational outcomes must be imparted during design and development. These include such design-dependent parameters as reliability, maintainability, supportability, usability, producibility, disposability, sustainability, affordability and others. These parameters are required to be considered at the early stages of design if desired operational behaviours are to be realised. A system design and development require appropriate and timely application of engineering and management efforts to meet the previously mentioned parameters. A system may serve its intended purpose most effectively when its technical and operating characteristics are engineered into the design. Therefore, operational feasibility is a critical aspect of systems engineering that needs to be an integral part of the early design phases.

* + 1. **TECHNICAL FEASIBILITY**

This involves questions such as whether the technology needed for the system exists, how difficult it will be to build, and whether the firm has enough experience using that technology. The assessment is based on outline design of system requirements in terms of input, processes, output, fields, programs and procedures. This can be qualified in terms of volume of data, trends, frequency of updating in order to introduce the technical system. The application has been developed on windows 10 platform and a high configuration of 8GB RAM on Intel core i5 10th generation processor. This is technically feasible. The technical feasibility assessment is focused on gaining an understanding of the present technical resources of the organization and their applicability to the expected needs of the proposed system. It is an evaluation of the hardware and software and how it meets the need of the proposed system.

* + 1. **ECONOMIC FEASIBILITY**

Establishing the cost-effectiveness of the proposed system i.e., if the benefits do not outweigh the costs then it is not worth going ahead. In this fast-paced world today there is a great need of online social networking facilities, thus the benefits of this project in the current scenario make it economically feasible. The purpose of the economic feasibility assessment is to determine the positive economic benefits to the organization that the proposed system will provide. It includes quantification and identification of all the benefits expected. This assessment typically involves a cost/benefits analysis.

* 1. **SCOPE**

It will work on all kinds of devices as well as different screen sizes.

* 1. **CATEGORY**

Web application

**CHAPTER 2 : SOFTWARE REQUIREMENTS SPECIFICATION**

**2.1 Hardware Requirements**

|  |  |
| --- | --- |
| S.No. | Description |
| 1 | PC with 250 GB or more Hard disk. |
| 2 | PC with 4 GB RAM. |
| 3 | PC with Intel core i3 or more |

**2.2 Software Requirements**

|  |  |  |
| --- | --- | --- |
| S.No. | Description | Type |
| 1 | Operating System | Windows XP / 7/8/10 |
| 2 | Language | Python (Django)  Angular |
| 3 | Database | PostgreSQL |
| 4 | IDE | Vs code/sublime |
| 5 | Browser | Google Chrome |

**CHAPTER 3 : ANALYSIS**

**3.1. DFD (Data Flow Diagram)**

DFD is pictorial representation of system’s data and it is used to show the flow of data. It represents the flow of data values and the functional dependencies between the data values, process and the data stores.

**Arrow: -** An Arrow identifies data flow. It is a pipeline through which data flows.

**Circles: -** A Circle stands for a process that converts data into information.

**Open-Ended Boxed: -** It represents data store or temporary repository of data.

**Square: -** A Squaredefines a source or destination of system’s data.

**3.1.1 ZERO LEVEL DFD**

**Diagram

Description automatically generated**

**3.1.2 FIRST LEVEL DFD**

**![Diagram

Description automatically generated]()**

**3.2 USECASE DIAGRAM**

**![Diagram

Description automatically generated]()**

**CHAPTER 4 : STRUCTURE**

**MODULES**

The web application QuizzBizz-Online Quiz System has following element which incorporate the operations like registration, login, give quiz and view result.

* Login
* Quiz
* Result

**DATA DICTIONARY**

**User table**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **FIELD\_NAME** | **DATA\_TYPE** | **PRIMARY KEY** |
| **1** | **id** | **Integer** | **yes** |
| **2** | **Password** | **varchar** |  |
| **3** | **Is\_superuser** | **boolean** |  |
| **4** | **name** | **varchar** |  |
| **5** | **Email** | **varchar** |  |
| **6** | **usename** | **varchar** |  |
| **7** | **Is\_staff** | **boolean** |  |
| **8** | **Is\_active** | **boolean** |  |

**Quiz Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **FIELD\_NAME** | **DATA\_TYPE** | **PRIMARY KEY** |
| **1** | **id** | **integer** | **yes** |
| **2** | **name** | **varchar** |  |
| **3** | **description** | **Varchar** |  |
| **4** | **image** | **varchar** |  |
| **5** | **slug** | **Varchar** |  |
| **6** | **roll\_out** | **boolean** |  |

**Question table**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **FIELD\_NAME** | **DATA\_TYPE** | **PRIMARY KEY** |
| **1** | **Id** | **Integer** | **yes** |
| **2** | **Label** | **Varchar** |  |
| **3** | **Order** | **Integer** |  |
| **4** | **Quiz\_id** | **integer** |  |

**Answer table**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **FIELD\_NAME** | **DATA\_TYPE** | **PRIMARY KEY** |
| **1** | **Id** | **Integer** | **yes** |
| **2** | **Label** | **Varchar** |  |
| **3** | **Is\_correct** | **boolean** |  |
| **4** | **Question\_id** | **integer** |  |

**UserAnswer table**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **FIELD\_NAME** | **DATA\_TYPE** | **PRIMARY KEY** |
| **1** | **Id** | **Integer** | **yes** |
| **2** | **answer\_id** | **Integer** |  |
| **3** | **question\_id** | **Integer** |  |
| **4** | **quiz\_id** | **integer** |  |

**Quiz\_taker table**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **FIELD\_NAME** | **DATA\_TYPE** | **PRIMARY KEY** |
| **1** | **Id** | **Integer** | **yes** |
| **2** | **Score** | **Integer** |  |
| **3** | **Completed** | **Boolean** |  |
| **4** | **quiz\_id** | **integer** |  |
| **5** | **User\_id** | **integer** |  |

**CHAPTER 5 : TESTING**

Software testing is quite expensive and time-consuming process. It is performed to proof that program is error free. It represents the last word review of specification, design and coding. This review can be based on the feedback obtained from the users. In the software development process, we test the software at every stage to detect the errors. Testing proves plays a very important rote for quality assurance & reliability of the software. There are three levels of testing:

* Unit Testing
* System Testing
* Integration Testing

**5.1 Unit Testing**

In this testing the analyst tests the programs making up a system. For this reason, unit testing is sometimes called program testing. Unit testing offers stress on the modules severally of one another, to find errors. It is especially for verification of the code i.e., the goal of this testing is to test the internal logic of the modules. Unit testing may be performed from the bottom up, starting with smallest and lowest level modules and proceeding one at a time.

**5.2 System Testing**

System testing is the important and essential part of the system development phase, after designing and developing the software. We cannot say that every program or system design is perfect because of lack of communication between the users and designer. System testing makes a logical assumption that if all the parts of the system are correct, the goal will be successfully activated.

**5.3 Integration Testing**

Integration testing (sometimes called integration and testing, abbreviated I&T) is the phase in software testing in which individual software modules are combined and tested as a group. It occurs after unit testing and before validation testing. Integration testing takes as its input modules that have been unit tested, groups them in larger aggregates, applies tests defined in an integration test plan to those aggregates, and delivers as its output the integrated system ready for system testing.

**CHAPTER 6 : CONCLUSION AND**

**FUTURE ENHANCEMENT**

QuizzBizz-Online quiz system is developed using Django framework and Knox Security meets the requirements of the system. The system is at a steady state and all the bugs have been eliminated. The system is operated at a high level of efficiency and all the users of the system are aware of its advantages. The system solves all the problems it was intended to solve in order to facilitate the users of the pre-existing system.

There are a lot things for future enhancement of this project. The future enhancements that are possible in the project are as follows:

* Gmail verification for student registration.
* Setting timer for quiz so that quiz end automatically after set time is over.