



**A JAVA**  
**Project Report**  
**on**  
**Quiz Manager Application**  
**(QM)**

**Submitted by**  
**Ami Ray**  
**(amy.ray.887@gmail.com)**  
  
**Nemani Venkata Naga Arjun**  
**(arjun.fall2018@gmail.com)**

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## 1.SUBJECT DESCRIPTION

### [1.1]Introduction

#### [1.1.1]Overview:

This report contains all the detail of the Quiz Manager (QM)

#### [1.1.2] Background:

The main objective behind the project is to create a reliable Quiz Manager App by application of Java knowledge we have acquired.

#### [1.1.3] Objective

The main goal of this project is to develop an application using Java which can connect, store, retrieve, modify and delete information in the database.

The following are the objectives that the application needs to satisfy:

- User selects Topic and Difficulty Level
- Display MCQ & Open Questions
- Store the Response.
- Calculate the response from the user and show score.

#### [1.1.4] Development Environment

PLATFORM USED : **Windows 10**

LANGUAGE USED : **Java SE 8**

IDE : **Eclipse**

DATABASE : **SQLite**

## 2.SUBJECT ANALYSIS

### [2.1] Features

- Platform Independent
- Easy to use
- Robust
- Clean separation of various components
- Easy Modification

### [2.2] Application Feasibility

- This current application is a prototype of a system that can be created for testing the working of the quiz
- The costs are much reduced as we do not depend on graphical interface.
- Most of the components used such as the development platform and databases are open source.

### [2.3] Data Description

The data description and data access objects are clearly specified below.

- int totalCorrectAnswer
- int totalMcqQuestion
- int totalOpenQuestion

### DAOs

- **processAllQuestions** : This method displays the MCQ and open questions based on the user selected topic and difficulty level. It also stores the answers and displays the score.
- **startQuizManager** : This method is used to start the quiz  
Output parameters : Displays a message and waits for an input
- **takeSelectedTopicInput**: This method is used to select the topic for the quiz  
Input parameter : Take a int value of Topic which are assigned to an ID  
  
Output parameters : Displays the Topic to choose and store the selected topic id.

- **takeSelectedDifficultyLevel:** This method is used to receive the Difficulty level of the Quiz from the user.

Input parameter : Int value any of the 3 levels

Output parameter : Displays the Options of Levels and stores the selected difficulty level

- **fetchQuestionsOnTopicAndDiffLevel:** This method is used to fetch the Question from the database based on the user selected topic and the difficulty level.

Input parameter : ID (level),ID(topic),

Output parameters : Returns list of Questions objects by querying database.

#### [2.4] Expected Results

The result we are expecting is for a clean and reliable Quiz Manager without any hiccups. The database used is SQLite.

#### [2.5] Scope and limitations

##### **Scope:**

- Can be used in schools to increase the efficiency
- Will help reduce the paper waste
- Once setup can be used for many times and can be updated when needed

##### **Limitations:**

- Lack of user GUI/web interface
- Lack of user login
- Need requested software requirement
- Lack of .exe file

### 3. CONSOLE OPERATIONS DESCRIPTIONS

Console Operations Implemented in this Systems are:

1. Each Operations are explained below

- **AppLauncher:**

The App launcher will first scans and then executes flies to establish connection to database where the questions are stored and will also launch the question service.

- **startQuizManager()**

This console operation will Display the welcome message and will wait for input from the user for the topic section and the Difficulty level and updates it to the Session.

- **processAllQuestions()**

This console operations will Fetch the question based on the Topic and level and will take the answer or the response from the user and cross checks with the Actual answer from the data base.

- **endQuizMessage()**

This console operation is after the result display and will ask for to take a Retest or exit.

- **takeSelectedTopicInput()**

This console operation will send the topic selected to the Session and will wait for the level to give the question from the database.

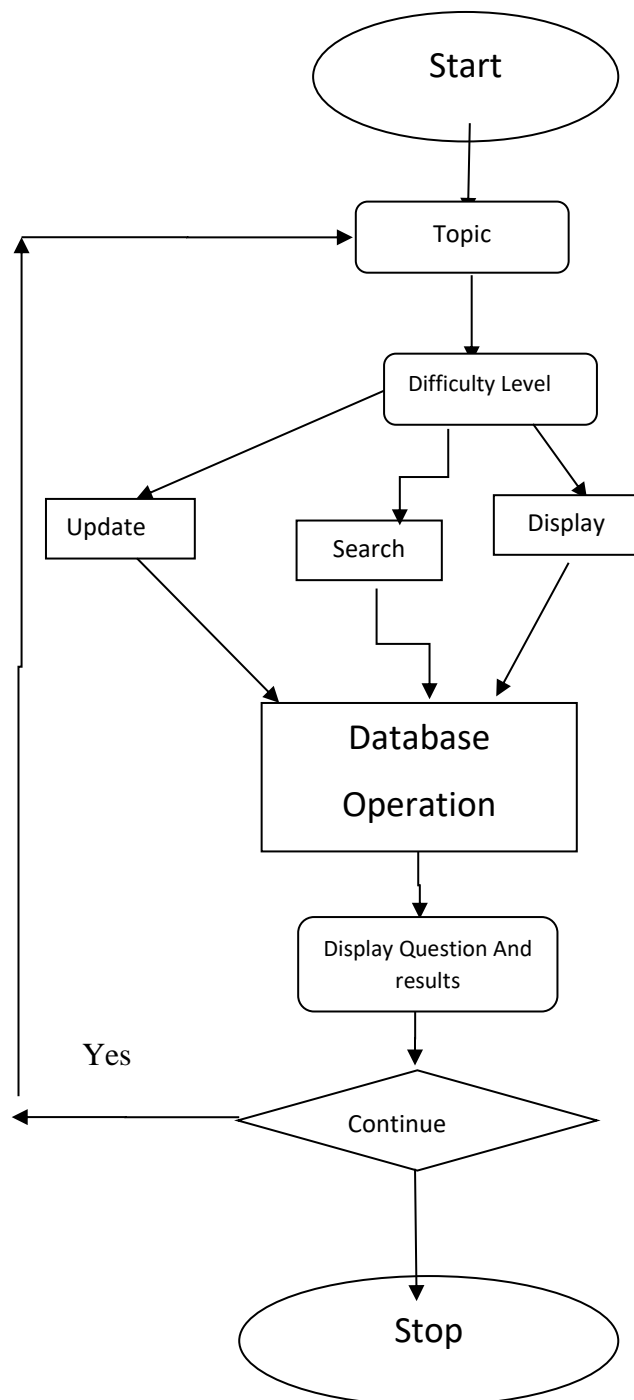
- **takeSelectedDifficultyLevel()**

This console operation is after the topic selection and will give the session user the questions tags.

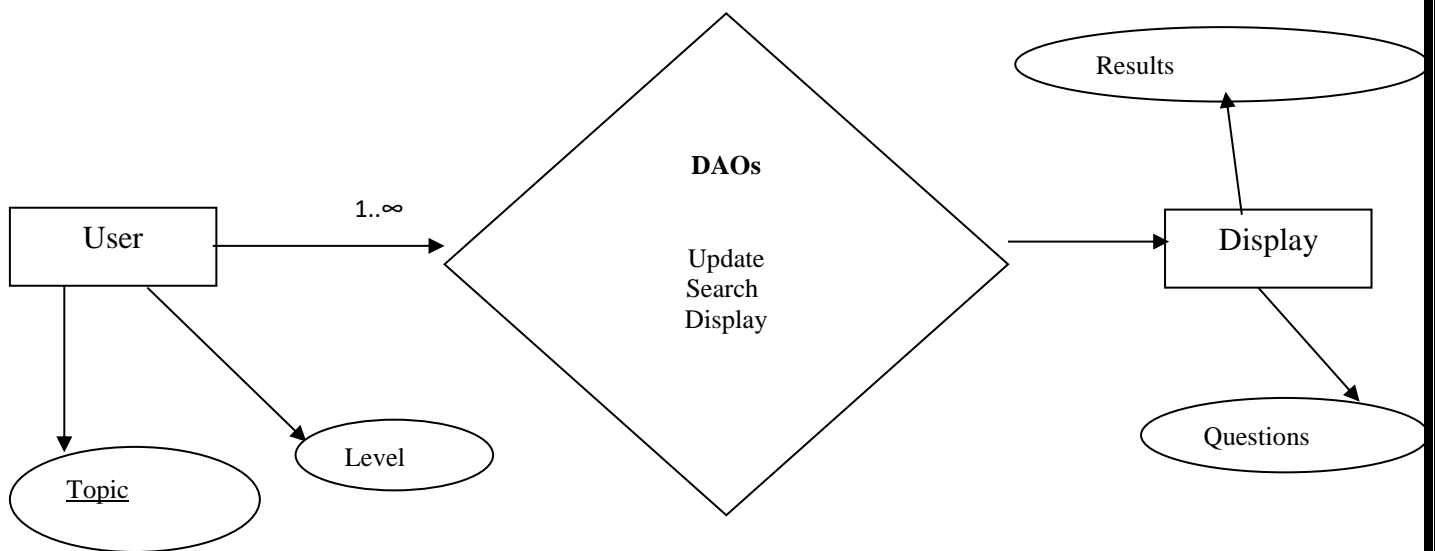
- **SQLite:**

In this we have implemented SQL lite dbms so that the session can be stored in the same path as where it is begin excited and will create a dbms when it first run which is only used for that pc.

## Global Application Flow



## Global Schema And Major Schema Features





## 4.SCREENSHOTS

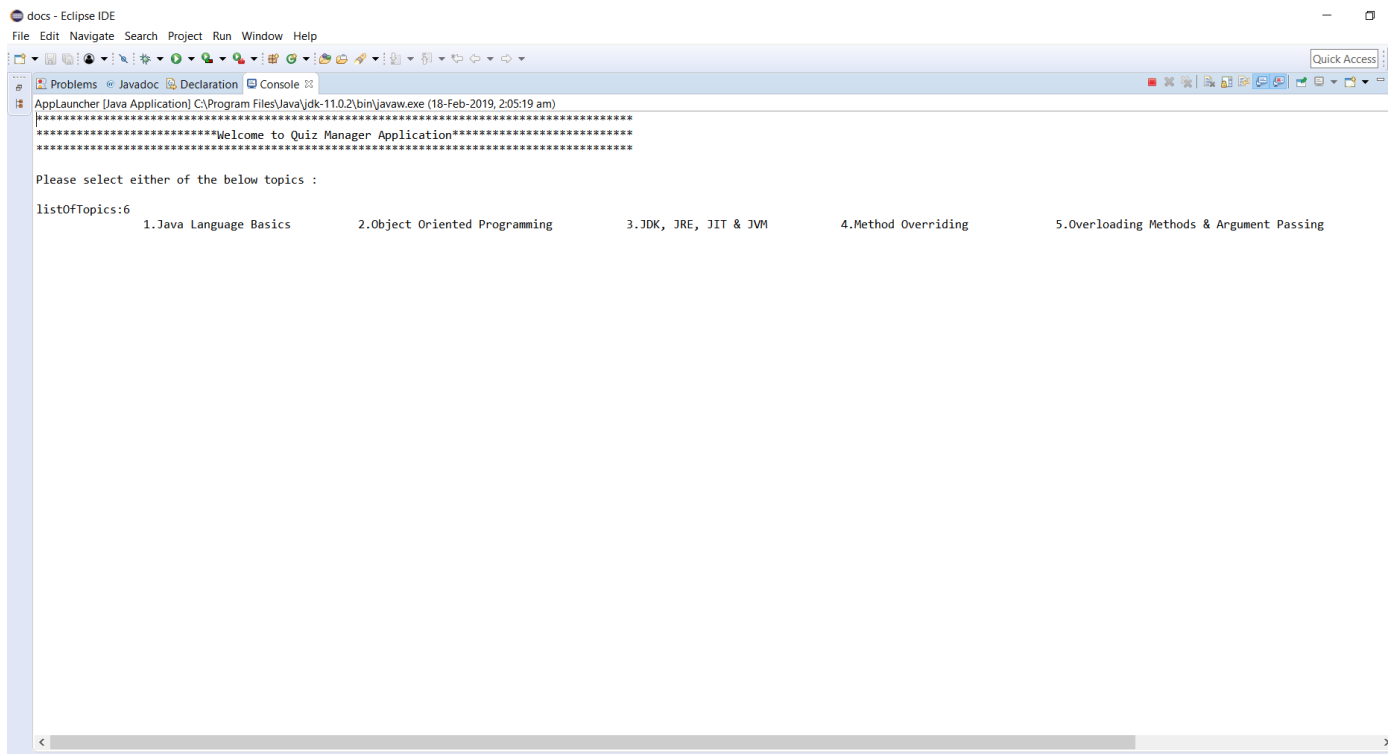


Fig 4.1: Start up of Quiz.

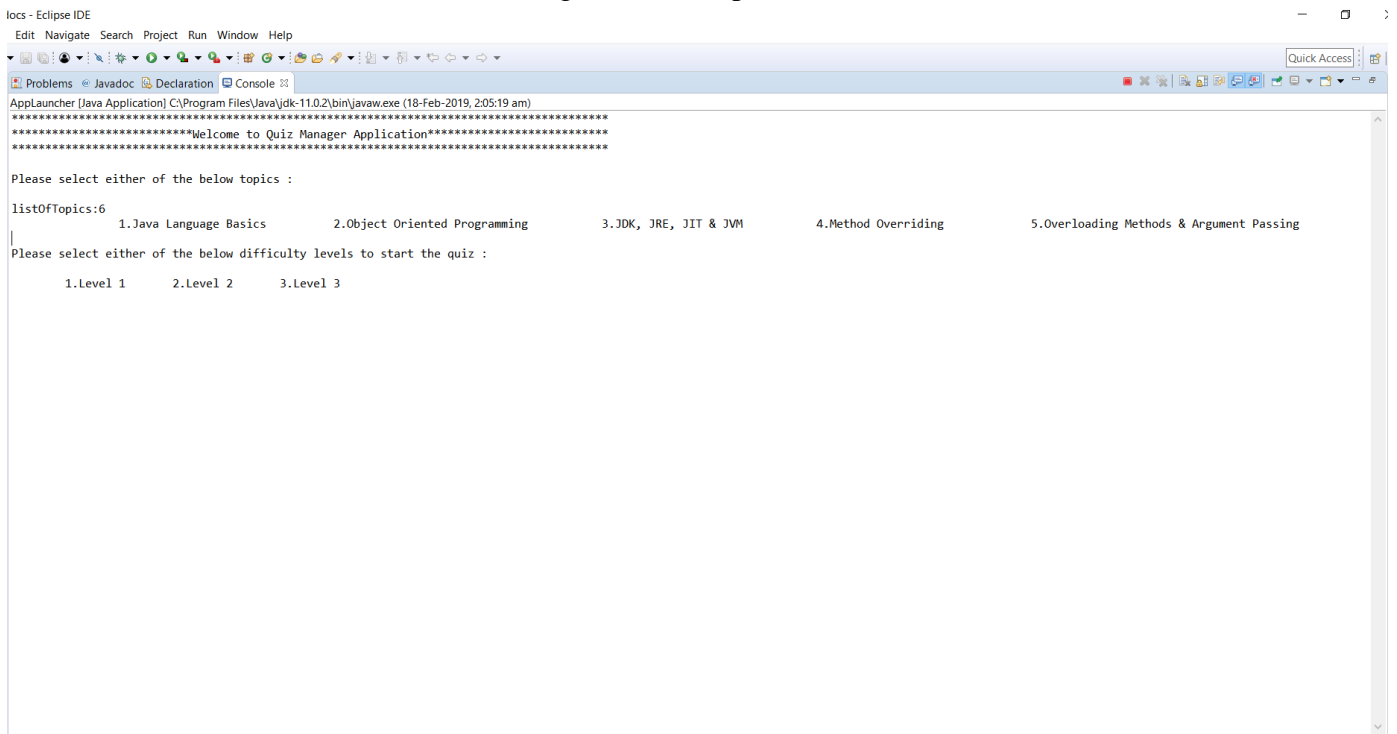


Fig 4.2: After topic Selection.

```

docs - Eclipse IDE
File Edit Navigate Search Project Run Window Help

-terminated> Applauncher [Java Application] C:\Program Files\Java\jdk-11.0.2\bin\javaw.exe (17-Feb-2019, 8:21:05 pm)
*****Welcome to Quiz Manager Application*****

Please select either of the below topics :

listOfTopics:6
1.Java Language Basics      2.Object Oriented Programming      3.JDK, JRE, JIT & JVM      4.Method Overriding      5.Overloading Methods & Argument Passing

Please select either of the below difficulty levels to start the quiz :

1.Level 1      2.Level 2      3.Level 3

Which of the following are legal lines of Java code?

1. int w = (int)888.8;
2. byte x = (byte)100L;
3. long y = (byte)100;
4. byte z = (byte)100L;

a) 1 and 2
b) 2 and 3
c) 3 and 4
d) All statements are correct
d

What is the range of byte data type in Java?

a) -128 to 127
b) -32768 to 32767
c) -2147483648 to 2147483647
d) None of the mentioned
a

Why Java is platform independent?
it have same compiler for every phatporm

What are wrapper classes?

What is the range of short data type in Java?

a) -128 to 127

```

Fig 4.3: The Quiz based on the level and topic.

```

docs - Eclipse IDE
File Edit Navigate Search Project Run Window Help

-terminated> Applauncher [Java Application] C:\Program Files\Java\jdk-11.0.2\bin\javaw.exe (18-Feb-2019, 2:05:19 am)

1.Level 1      2.Level 2      3.Level 3

What is the range of byte data type in Java?

a) -128 to 127
b) -32768 to 32767
c) -2147483648 to 2147483647
d) None of the mentioned
a

What is the range of short data type in Java?

a) -128 to 127
b) -32768 to 32767
c) -2147483648 to 2147483647
d) None of the mentioned
b

Which of the following are legal lines of Java code?

1. int w = (int)888.8;
2. byte x = (byte)100L;
3. long y = (byte)100;
4. byte z = (byte)100L;

a) 1 and 2
b) 2 and 3
c) 3 and 4
d) All statements are correct
c

Why Java is platform independent?
the compiler is Same for every Platform

What are wrapper classes?
You have got 0% in MCQs
What would you like to do?
1. Exit      2. Restart
Invalid Input. Please re-enter.

```

Fig 4.4: After the quiz the Ending menu.

## References

- <http://thomas-broussard.fr/>
- [http://www.tutorialspoint.com/java/java\\_data\\_structures.htm](http://www.tutorialspoint.com/java/java_data_structures.htm)
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