

B.M.S College of Engineering

P.O. Box No.: 1908 Bull Temple Road,

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DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING



Course – JAVA PROGRAMMING

Course Code – 19IS4PCDJAV

Final report on Project work

Student Enrolment & Registration Portal

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CERTIFICATE

Certified that the Project has been successfully presented at B.M.S College Of Engineering by **Govind Satwani and Gowrishankar G** bearing **USN: 1BM18IS037 and 1BM18IS039** in partial fulfilment of the requirements for the IV Semester degree in Bachelor of Engineering in Information Science & Engineering of Visvesvaraya Technological University, Belgaum as a part of the course **JAVA programming (19IS4PCJAV)** during academic year 2019-2020.

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1. **Abstract**

JAVA was developed by Sun Microsystems Inc in 1991, later acquired by Oracle Corporation. It was developed by James Gosling and Patrick Naughton. It is a simple programming language. Writing, compiling and debugging a program is easy in java. It helps to create modular programs and reusable code.

- Java is a platform independent language.
- Java is an Object-Oriented language and is simple and robust.
- Java supports multithreading, File Handling and Exception handling.

Java Swing is a part of Java Foundation Classes (JFC) which was designed for enabling large-scale enterprise development of Java applications. Java Swing is a set of APIs that provides graphical user interface (GUI) for Java programs. Java Swing is also known as Java GUI widget toolkit.

Swing is platform independent and enhanced MVC (Model –View – Controller) framework for Java application

2. Problem Statement

A Student Enrolment and Registration Portal that generates a form using Java Swing and saves the details in a Database.

3. Introduction

- In this project, we are creating an online student enrolment form for freshers and Course Registration form for seniors, that takes details of the students depending on their year and/or semester of enrolment.
- The final form takes in input and the entered details are stored in a database.
- This database can be viewed by the admin to see the entries that have already been stored in it.
- Also, the form will be saved in the student's working system for future reference.

4. Overview of the project

public class details

- This class takes in details of student, namely their **First Name** and **Last Name**. Based on their semester, one of the two methods **fresher()** or **senior()** are called upon.
- If the student is a fresher, he/she is asked to enter further details, is assigned a USN number, which is different for each registered student in the current year. Furthermore, the student is made aware of his/her courses for the semester.
- If the student is a senior(higher semesters), he is made aware of the courses of the semester he is registering for and the fees to be paid.

public class demo1

- This class extends the **JFrame** class, and provides details for how the form should look like, by providing details as to where radio buttons, checkboxes and other items should be placed and how they are used.
- The final form is created as per the details mentioned in this class.
- This class uses various Java Swing and Java AWT packages to create the form.

public class enroll

- This class creates an **object** of class **Details**, takes in details of all students with the help of this object.
- It also decides if the student is a senior or fresher by taking in the semester of the student. This input is used in the class Details to either call fresher() or senior().
- Finally, an **object** of class **Demo1** is created and the previously-created object of Details is passed as parameter to this new object of class Demo1.

5. Tools Used

1. Eclipse IDE
2. MySQL Database
3. Swing and awt packages

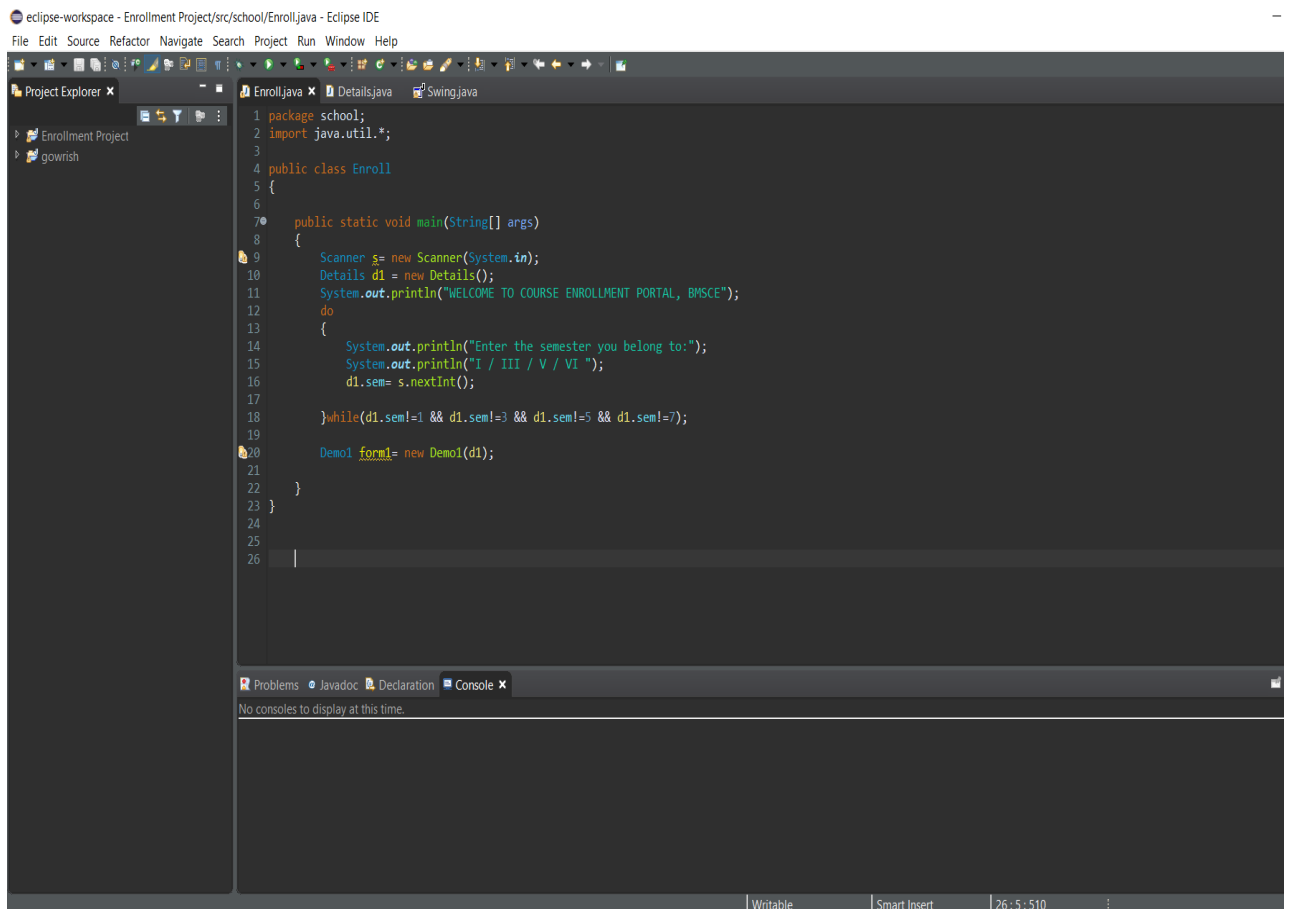
Topics/Concepts Involved:

- Swings
- File I/O
- Exception Handling
- Using classes within packages
- Multiple condition-based classes
- Switch Statements
- Connecting a Java code to MySQL database

6. Implementation/Code

The program codes being too long, have been attached in the Google Drive link below:

<https://drive.google.com/open?id=10fzwrYf64v6bWWxDqrOWy5KHLgHflCR9>



The screenshot displays the Eclipse IDE interface. The top menu bar includes File, Edit, Source, Refactor, Navigate, Search, Project, Run, Window, and Help. The Project Explorer on the left shows a project named 'Enrollment Project' with a package 'gowish'. The main editor window shows the code for 'Enroll.java'. The code is as follows:

```
1 package school;
2 import java.util.*;
3
4 public class Enroll
5 {
6
7     public static void main(String[] args)
8     {
9         Scanner s= new Scanner(System.in);
10        Details d1 = new Details();
11        System.out.println("WELCOME TO COURSE ENROLLMENT PORTAL, BMSCE");
12        do
13        {
14            System.out.println("Enter the semester you belong to:");
15            System.out.println("I / III / V / VI ");
16            d1.sem= s.nextInt();
17
18        }while(d1.sem!=1 && d1.sem!=3 && d1.sem!=5 && d1.sem!=7);
19
20        Demo1 form1= new Demo1(d1);
21
22    }
23 }
24
25
26
```

The bottom of the IDE shows a 'Problems' tab with the message 'No consoles to display at this time.' The status bar at the very bottom indicates 'Writtable', 'Smart Insert', and the time '26:5:510'.

7. Results/ Output

Freshers' Enrolment Output:

```
eclipse-workspace - Enrollment Project/src/school/Swing.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help

Enroll (1) [Java Application] C:\Program Files\Java\jdk-13.0.2\bin\javaw.exe (14-Jun-2020, 6:29:17 pm)
WELCOME TO COURSE ENROLLMENT PORTAL, BMSCE
Enter the semester you belong to:
I / III / V / VI
1
Enter your first name: Josh
Enter your last name: Anderson

Welcome to BMSCE college

Enter the Branch you want to enroll to:
1:Information Science
2:Electronics and Communication
3:Mechanical Engineering

Your choice: 2

Your courses for this semester are:
1.Field theory
2.Control systems
3.Network Analysis
4.Discrete Mathematics-1

Enter your total percentage of 2nd PU: 87
Congraulations you've recieved scholarship of Rs.10,000

Enter your father's name: Matthew
Enter your mother's name: Elena
Enter Date of birth: 09-07-2002

Enter your contact number: 9761235557
FEES TO BE PAID: 65000.0
Your new USN created is: 1BM20EC037
```

Enrollment Form

First Name:	<input type="text" value="Josh"/>	Branch:	<input type="text" value="Electronics and Communication"/>
Last Name:	<input type="text" value="Anderson"/>	USN:	<input type="text" value="1BM20EC037"/>
Date of Birth:	<input type="text" value="09-07-2002"/>	Father's Name:	<input type="text" value="Matthew"/>
Select Gender	<input checked="" type="radio"/> Male <input type="radio"/> Female		
Mother's Name:	<input type="text" value="Elena"/>		
Courses:	<input type="text" value="1.Field theory 2.Control systems 3.Network Analysis 4.Discrete Mathematics-1"/>		
Fees:	<input type="text" value="65000.0"/>	Payment Mode	<input checked="" type="radio"/> Online <input type="radio"/> Cash <input type="radio"/> Cheque/DD
I agree to submit my Marks card to avail scholarship <input checked="" type="radio"/> I Agree			
<input type="button" value="Finish"/>		<input type="button" value="Save Form"/>	

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: swing* studentinfo studentinfo studentinfo studentinfo studentinfo studentinfo studentinfo studentinfo

1 • SELECT * FROM swing.studentinfo;

Limit to 1000 rows

Result Grid

usn	fname	lname	dob	branch	mother	father	mobile	scholarship	fees
IBM18IS039	Gowrishankar	G	15-02-2000	Information Science	G.Kalpna	N.Ganesh	9071889116	15000	25000
IBM20EC037	Josh	Anderson	09-07-2002	Electronics and Communication	Elena	Matthew	9761235557	10000	65000

Administration Schemas studentinfo 1 x

Apply Revert

Seniors' Course Registration Output:

```
eclipse-workspace - Enrollment Project/src/school/Swing.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help

Problems Javadoc Declaration Console x
Enroll (1) [Java Application] C:\Program Files\Java\jdk-13.0.2\bin\javaw.exe (14-Jun-2020, 6:43:34 pm)
WELCOME TO COURSE ENROLLMENT PORTAL, BMSCE
Enter the semester you belong to:
I / III / V / VI
5
Enter your first name: Sharada
Enter your last name: Preeti

Enter the Branch you are in:
1:Information Science
2:Electronics and Communication
3:Mechanical Engineering

Your choice: 3
1.Metrology & Instrumentation
2.Manufacturing Technology
3.CAED-2
4.Statics
Enter your USN
1BM18ME072

Enter your total percentage in previous semester
92
Congraulations you've recieved scholarship of Rs.15,000

Enter your father's name:Rakesh
Enter your mother's name:Meera
Enter Date of birth:08-03-2000

Enter your contact number: 9024234661
FEES TO BE PAID: 25000.0
```

Course Registration Form

First Name:	<input type="text" value="Sharada"/>	Branch:	<input type="text" value="Mechanical Engineering"/>
Last Name:	<input type="text" value="Preeti"/>	USN:	<input type="text" value="1BM18ME072"/>
Date of Birth:	<input type="text" value="08-03-2000"/>	Father's Name:	<input type="text" value="Rakesh"/>
Select Gender	<input type="radio"/> Male <input checked="" type="radio"/> Female		
Mother's Name:	<input type="text" value="Meera"/>		
Courses:	<input type="text" value="1.Metrology & Instrumentation 2.Manufacturing Technology 3.CAED-2 4.Static"/>		
Fees:	<input type="text" value="25000.0"/>	Payment Mode	<input type="radio"/> Online <input type="radio"/> Cash <input checked="" type="radio"/> Cheque/DD
I agree to submit my Marks card to avail scholarship <input checked="" type="radio"/> I Agree			
<input type="button" value="Finish"/>		<input type="button" value="Save Form"/>	

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: swing* studentinfo studentinfo studentinfo studentinfo studentinfo studentinfo studentinfo studentinfo

SCHEMAS

Filter objects

- gownish
- sakila
- swing
 - Tables
 - studentinfo
 - Views
 - Stored Procedures
 - Functions
- sys
- world

Limit to 1000 rows

1 • SELECT * FROM swing.studentinfo;

usn	fname	lname	dob	branch	mother	father	mobile	scholarship	fees
IBM1815039	Gowrishankar	G	15-02-2000	Information Science	G.Kalpna	N.Ganesh	9071889116	15000	25000
IBM18ME072	Sharada	Preeti	08-03-2000	Mechanical Engineering	Meera	Rakesh	9024234661	15000	25000
IBM20ECO37	Josh	Anderson	09-07-2002	Electronics and Communication	Elena	Matthew	9761235557	10000	65000
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Result Grid

Form Editor

Field Types

Query Stats

Administration Schemas

studentinfo 1 x

Apply Revert

8. References

- <https://www.javatpoint.com/java-swing>
- <https://www.tutorialspoint.com/swing/index.htm>