**Ex.No: EXAM REGISTRATION SYSTEM**

**Date:**

**AIM:**

To Design, Implement and Test the Exam Registration System described in the given problem statement .

**PROBLEMSTATEMENT:**

The main objective of Exam Registration System is to make applicants register themselves and apply for the exam. Exam Registration System provides easy interface to all the users to apply for the exam easily. The Exam Registration System is an application in which applicant can register themselves for the exam. The details of the students who have registered for the examination will be stored in a database and will be maintained. The registered details can then be verified for any fraudulent or duplication and can be removed if found so. The database which is verified can be used to issue hall tickets and other necessary materials to the eligible students.

The process of students accessing the registration application and applying for the examination by filling out the form with proper details and then the authorities verify those details given for the form with correct and eligible details.

* The students access exam registration application.
* They fill out the form with correct and eligible details.
* They complete the payment process.
* The authorities verify or check the details.
* After all verification the exam registration database is finalized.

The overview of the project is to design an exam registration tool for the registration process which makes the work easy for the applicant as well as the Authorities of Exam.

**USECASE DIAGRAM:**



**CLASS DIAGRAM:**



**SEQUENCE DIAGRAM:**



**ACTIVITY DIAGRAM:**

****

**STATE CHART DIAGRAM:**

****

**COMPONENT DIAGRAM:**



**DEPLOYMENT DIAGRAM:**



**IMPLEMENTATION & TESTING**

**Register.java**

import java.io.\*;

import java.util.\*;

public class Register {

public static String name;

public static String address;

public static course c=new course();

public static Register reg=new Register();

public static Payment p=new Payment();

public static Result r=new Result();

public static int start;

public static Scanner s=new Scanner(System.in);

public static void main(String[] args)

{

System.out.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Welcome to Exam Registration System\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

System.out.println("Please enter the following details\n");

System.out.println("Enter the Name of the candidate:\n");

name=s.nextLine();

System.out.println("Enter your address:\n");

address=s.nextLine();

System.out.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*Thanks for providing the details\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

System.out.println("========>>>>>>>Press 1 to start the registration process<<<<<<<=========");

start=s.nextInt();

reg.register();

}

public void register() {

if(start==1)

{

System.out.println("..................Initiating the registration process...................");

c.get\_course();

System.out.println("Press 2 to start the payment process");

start=s.nextInt();

}

if(start==2)

{

p.start\_payment();

if(p.status){

System.out.println("Payment Successful!!!!");

System.out.println("Press 4 to check your results for examination");

start=s.nextInt();

}

else{

System.out.println("Error while processing payment");

System.out.println("Press 3 to try again");

p.start\_payment();

start=4;

}

}

if(start==4)

{

r.result\_info();

if(r.status)

{

r.generate\_certificate();

}

}

}

}

**Result.java**

import java.util.\*;

public class Result {

public Boolean status;

public Integer marks;

public static Random r=new Random();

public Register has;

public void result\_info() {

marks=r.nextInt(100);

if(marks<35)

{

System.out.println("\nYou have failed in the examination");

status=false;

}

else {

status=true;

}

}

public void generate\_certificate() {

System.out.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Certification of Completion\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

System.out.println("Candidate Name:"+Register.name);

System.out.println("Candidate Address:"+Register.address);

System.out.println("Course Name:"+Register.c.cname);

System.out.println("Course ID:"+Register.c.cid);

System.out.println("Marks Obtained:"+marks);

System.out.println("This is to certify that "+Register.name+" has successfully completed the course "+Register.c.cname);

System.out.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

}

}

**Course.java**

import java.io.\*;

import java.util.\*;

public class course {

public String cname;

public int sel\_venue;

public String venue[]={"Chennai","Coimbatore","Kancheepuram","Tirunelveli"};

public int cid;

public int choice;

public String exam\_date;

public Register contains;

public Payment starts;

public void get\_course() {

Scanner s=new Scanner(System.in);

boolean flag=true;

while(flag)

{

System.out.println("The list of available courses\n");

System.out.println("1.C Programming\n2.Python Programming\n3.Java Programming");

choice=s.nextInt();

if(choice<4){

manage\_course(choice);

}

else

flag=true;

System.out.println("Select your venue");

for(int i=0;i<venue.length;i++)

{

System.out.println((i+1)+"."+venue[i]);

}

sel\_venue=s.nextInt();

System.out.println("Your selected Course Details are given below");

System.out.println("Course Name:"+cname);

System.out.println("Course ID:"+cid);

System.out.println("Exam Date:"+exam\_date);

System.out.println("Venue:"+venue[sel\_venue-1]);

flag=false;

}

}

public void manage\_course(int choice) {

switch (choice)

{

case 1:{

cname="C Programming";

cid=4566;

exam\_date="22-Feb-2020";

break;}

case 2:{

cname="Python Programming";

cid=6544;

exam\_date="25-Feb-2020";

break;}

case 3:{

cname="Java Programming";

cid=9844;

exam\_date="27-Mar-2020";

break;}

default:{

System.out.println("\nInvalid Course Selection\nSelect again!!!!");

}

}

}

}

**Payment.java**

import java.util.\*;

public class Payment {

public Integer amount;

public char run;

public Boolean status;

public Random r=new Random();

public course starts;

public static Scanner s=new Scanner(System.in);

public void start\_payment() {

amount=r.nextInt(2000);

System.out.println("\nAmount to be paid: INR "+amount);

System.out.println("\nPress Y to pay:");

run=s.next().charAt(0);

if(run=='Y'||run=='y' ){

System.out.println("\nStarting payment........");

status=true;

}

}

}

**OUTPUT:**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Welcome to Exam Registration System\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Please enter the following details

Enter the Name of the candidate:

**Piyush Chouhan**

Enter your address:

**Chennai**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*Thanks for providing the details\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

========>>>>>>>Press 1 to start the registration process<<<<<<<=========

**1**

..................Initiating the registration process...................

The list of available courses

1.C Programming

2.Python Programming

3.Java Programming

**2**

Select your venue

1.Chennai

2.Coimbatore

3.Kancheepuram

4.Tirunelveli

**4**

Your selected Course Details are given below

Course Name:Python Programming

Course ID:6544

Exam Date:25-Feb-2020

Venue:Tirunelveli

Press 2 to start the payment process

**2**

Amount to be paid: INR 71

Press Y to pay:

**y**

Starting payment........

Payment Successful!!!!

Press 4 to check your results for examination

**4**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Certification of Completion\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Candidate Name:Piyush Chouhan

Candidate Address:Chennai

Course Name:Python Programming

Course ID:6544

Marks Obtained:93

This is to certify that Piyush Chouhan has successfully completed the course Python Programming

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**TESTING:**

**TEST REPORT 1**

**Product :** EXAM REGISTRATION SYSTEM

**Use Case :**Select Course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test Case ID** | **Test Case / Action To Perform** | **Expected Result** | **Actual Result** | **Pass/Fail** |
| 1. c | Enter into  “registration process “ | Display Courses available & prompt user to select the course | Displays  The list of available courses  1.C Programming 2.Python Programming 3.Java Programming  2 | Pass |
|  | Pressed any number other than 1,2,3 | Displays an invalid key selection message and prompts the input from user again | Invalid Input  Enter again | Pass |
|  | Pressed 1 | Selects the course Java Programming | Java Programming | Pass |

**TEST REPORT 2**

**Product :**Exam Registration System

**Use Case :**Select Venue

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test Case ID** | **Test Case / Action To Perform** | **Expected Result** | **Actual Result** | **Pass/Fail** |
|  | Enter into “Venue Selection” | Displays the list of venues and prompts the user to select the venue | 1.Chennai  2.Coimbatore  3.Kancheepuram  4.Tirunelveli | Pass |
|  | Pressed 2 | Selects the venue Coimbatore | Coimbatore | Pass |
|  | Pressed 4 | Selects the venue Tirunelveli | Tirunelveli | Pass |

**TEST REPORT 3**

**Product :**Exam Registration System

**Use Case :**Fee Payment

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test Case ID** | **Test Case / Action ToPerform** | **Expected Result** | **Actual Result** | **Pass/Fail** |
|  | Enter into “Payment Process” | Displays the amount to be paid for the selected course | INR:500 | Pass |
|  | Pressed 2 | Start the payment and returns the result | INR: 714 | Pass |
|  | Pressed Y | Initiates the payment process | Displays the amount to be paid | Pass |