

GOVERNMENT POLYTECHNIC, NASHIK

(An Autonomous Institute of Govt. Of Maharashtra)



PROJECT REPORT ON

“RESULT GENERATION AND ANALYSIS SYSTEM”

FOR THE COURSE

THIRD YEAR DIPLOMA IN INFORMATION TECHNOLOGY

SUBMITTED BY

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GUIDED BY

Shri. P.B. Mali

SUBMITTED TO

GOVERNMENT POLYTECHNIC, NASHIK

ACADEMIC YEAR 2020-2021

GOVERNMENT POLYTECHNIC, NASHIK

(An Autonomous Institute of Govt. Of Maharashtra)



CERTIFICATE

This is to certify that, the Project Report on “**Result Generation and Analysis System**” has been successfully completed by project team in the fulfillment of requirement of Diploma in “**Information Technology**” from “**Government Polytechnic, Nashik (An Autonomous Institute of Government of Maharashtra)**” during the Academic Year 2020-2021. It is record of their work carried in my guidance. They have satisfactorily completed this project.

Guided By

Shri. P. B. Mali

H.O.D

Shri. Y. B. Sanap

Principal

Shri. D. P. Nathe

ACKNOWLEDGEMENT

We feel great in submitting this Project Report on “Result Generation and Analysis System”. We are thankful to the Department of Information Technology, Government Polytechnic, Nashik for providing us with the best of the facilities for completing our project.

A successful project is a result of good team work, which contains not only the people who put in their logic and handwork but also the people who guide them.

We are extremely grateful for the necessary information, with support provided by Mr. P.B. Mali Sir, for his timely suggestion and valuable guidance, for spending his precious time with us and help us by giving the very important details regarding the project. We would also like to thank for his constant encouragement and guidance to us.

Last but not least we would like to thank all our people who have helped us directly and indirectly in our project.

Submitted By:

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Master. Tejas Pramod Patil (185139)

Master. Rachit Jayantrao Patil (185138)

ABSTRACT

In this final year we have developed a project module that will help people in different sections for solving their needs and requirements.

The project is a Result Generation and Analysis System. In this project, we aimed to solve the challenges faced by college staff in analysis of student's result which is very difficult task to do with paper. So to tackle these challenges, necessitated us to develop a user friendly system. The system takes 3 parameters year, branch or term using this admin do analysis for all departments and hod do analysis only for particular department.

The most obvious advantage offered by result generation and analysis system is that it generates result very faster than traditional system. The interface uses to invoke different activities like sending message from hod to invigilator so that their communication quality gets improved.

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Chapter 1

INTRODUCTION

Result Generation and Analysis System

A Result Generation and Analysis system is basically divided into 3 modules which are Admin, Hod and Invigilator. An individual report card of each student has to be displayed and printed at a keystroke according to any selected format. An important aid for professors and lectures to judge their performance. Application mainly focuses on generating the result and analyze the performance through various interfaces. Generating the result is not enough, application also deals with data more accurately as data is more sensitive.

1.1 Need for the system

Universities, Polytechnics and colleges of education are considered the main provider of knowledge in various fields. Various courses of studies are taught in institutions, covering several fields including applied Sciences, Math, Computer, Human Resource, and Accounting. Most courses at universities consist of theory, mid-term, practical, oral and other aspects. So it is very difficult to manage the marks of every courses on paper.

Manually process of result generation is difficult task for college staff. Online result generation and analysis involves the use of the World-Wide Web, the Internet and computers to aid this process. With traditional system, lots of problems arise especially when the staff have to check that there is no remaining of fill up marks. There may be problems due to distance, time, or to manage the huge amount of data. Some times it could be the loss of data. The most difficult task to check how many students fail in course and how many students pass, i.e Analysis of the result.

As the educational world is moving faster and becoming more competitive, almost every university started to use an online result generation and analysis system, or newer technologies to facilitate their task, to have more time, and to be in pace with this fast-moving IT world. The system will aid lecturers to have a well-structured system for generating result and analysis. This will

eliminate paper work in their offices and improve on their efficiency in managing student's data. System has great interface with processing of huge amount of data to generate result and analyze it.

1.2 System Features

The unique feature is the system is developed using JSP, Servlet and Hibernate framework. It is used due to its numerous advantages like it is fast, secure, reliable, lightweight and more capable. Hibernate framework is most effective to work with databases. JSP and hibernate are compatible with most web servers, numerous operating systems and platforms.

The system is separated into three panels and the functionality is added in respective panels. The panels are as follows-

- Admin Panel
- HOD Panel
- Invigilator Panel

The system is user friendly, it can be easily handled by new user. The message system from hod panel make the work communication effective. Analysis functionality helps to analyze the student's result. The system does not deals only with technologies like JSP, Servlets and Hibernate but also try to use technologies just like JSPDF and htmltoexcel so the data can be presented in well formatted manner.

As the data is more crucial and sensitive so it needs to be protected from third party persons. The system is protected by username and password which are given to each user so that no one can interfere in each other's work. The system provides additional feature of 'Backup' which takes the backup of the database.

Chapter 2

REQUIREMENT ANALYSIS AND FEASIBILITY STUDIES

Software Requirement Specification

The Software Requirement Specification is produced at the culmination of the analysis task. The function and performance allocated to software as part of system engineering are redefined by establishing a complete information description as functional requirement, a representation of system behavior, an indication of performance requirement and design constraints, appropriate validation criteria.

2.1 Hardware Specification

Content	Description
Processors	Pentium IV, i3, i5, i7, i9
HDD	20 GB Min 40 GB Recommended
RAM	1 GB Min 2 GB Recommended
Keyboard	Standard 102 keys
Mouse	3 buttons

2.2 Software Requirements

Platform	Windows
Language	HTML, Java, JSP, Servlets
Database	MySQL
Server	Tomcat Server, Glassfish
Framework	Hibernate
Device	Laptop/Desktop (Recommend)

2.3 Requirement Analysis for Result Generation and Analysis

Admin

- The admin requests the site.
- The admin inserts his username and password at login area in the login Page.
- If the admin inserts a valid username and password he will see the Admin Panel that contains the following items:
 1. Change Password, Department and Backup
 2. View Students and View Courses
 3. View Hod and Import Exam Registration
 4. View Result, Print Result and Declare Result
 5. Register Students, Pending Students, Pass Students, Course-wise Pass Students, Course-wise Pending Students and Overall Analysis.

Hod

- The hod requests the site.
- The hod inserts his username and password at log in area in the login Page.
- If the hod inserts a valid username and password he or she will see the hod panel that contains the following items:
 1. Change Password or Profile
 2. Get Students and Get Courses
 3. Message System and Invigilator Register
 4. Register Students, Pending Students, Pass Students, Course-wise Pass Students, Course-wise Pending Students and Overall Analysis.

Functional requirements:

1. Hod can update his personal data.
2. Hod can see his department's students and courses.
3. Hod can send message to respective invigilator from his account and also able to register new invigilator.
4. Hod can analyze the register students for particular course, pending students in number of courses, pass students in number of courses, pending students in particular courses, pass students in particular courses and overall analysis.

Invigilator

- The Invigilator requests the site.
- The Invigilator inserts his username and password at login area in the login Page.

- If the invigilator inserts a valid username and password he will see the invigilator panel.
 1. View and Edit Profile
 2. Setting
 3. View Allocate Courses and Register Students
 4. Analytics

Functional requirements:

1. Invigilator can able to see their register courses.
2. Invigilator can add the PT, Theory, Practical, Oral and Termwork marks.
3. Invigilator can edit their marks and also able to analyze the work.
4. Invigilator can receive the message from HOD so that he can easily manage their work.

2.4 Feasibility Study

Feasibility is the test according to its workability, Impact on the organization, ability to meet user's need and use of resources. The objective of feasibility study is to acquire a sense of its scope.

The feasibility study concentrates on 4 areas:

1. Technical Feasibility
2. Financial Feasibility
3. Resources Feasibility
4. Economic Feasibility

1) Technical Feasibility

As it is developed in the Windows platform using Java and NetBeans. It is technically fit to run on any of Microsoft future Technology due to the Windows backward compatibility.

2) Financial Feasibility

The project was basically constructed considering the financially feasibility of our institute, and was completed under the expected financial restrictions.

3) Resources Feasibility

All the resources that were required to finish the project were identified and were used according to their need to complete the project in the specified deadline.

4) Economic Feasibility

To decide whether a project is economically feasible, we have to consider various factors as:

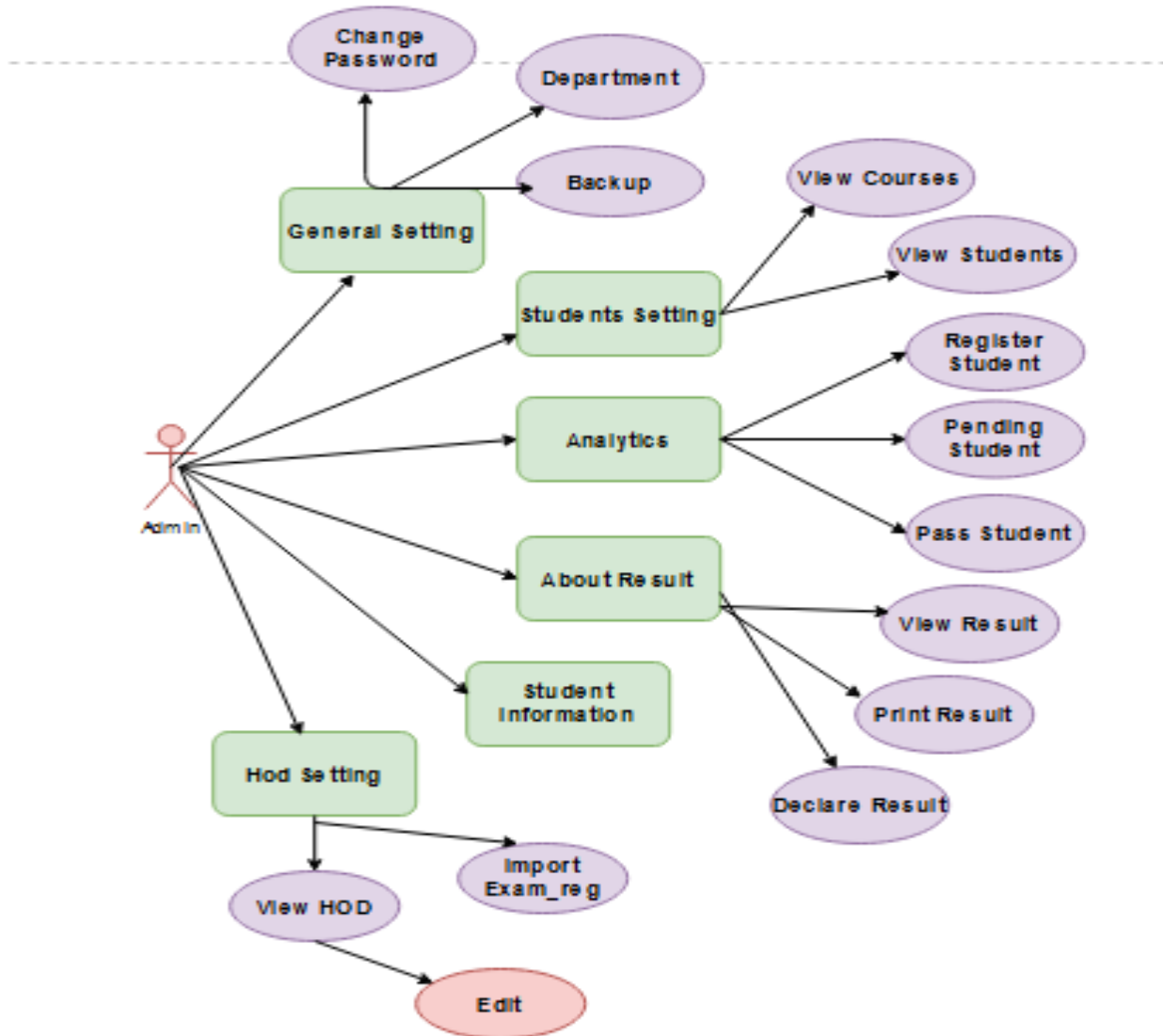
- Cost benefit analysis
- Maintenance costs

Chapter 3

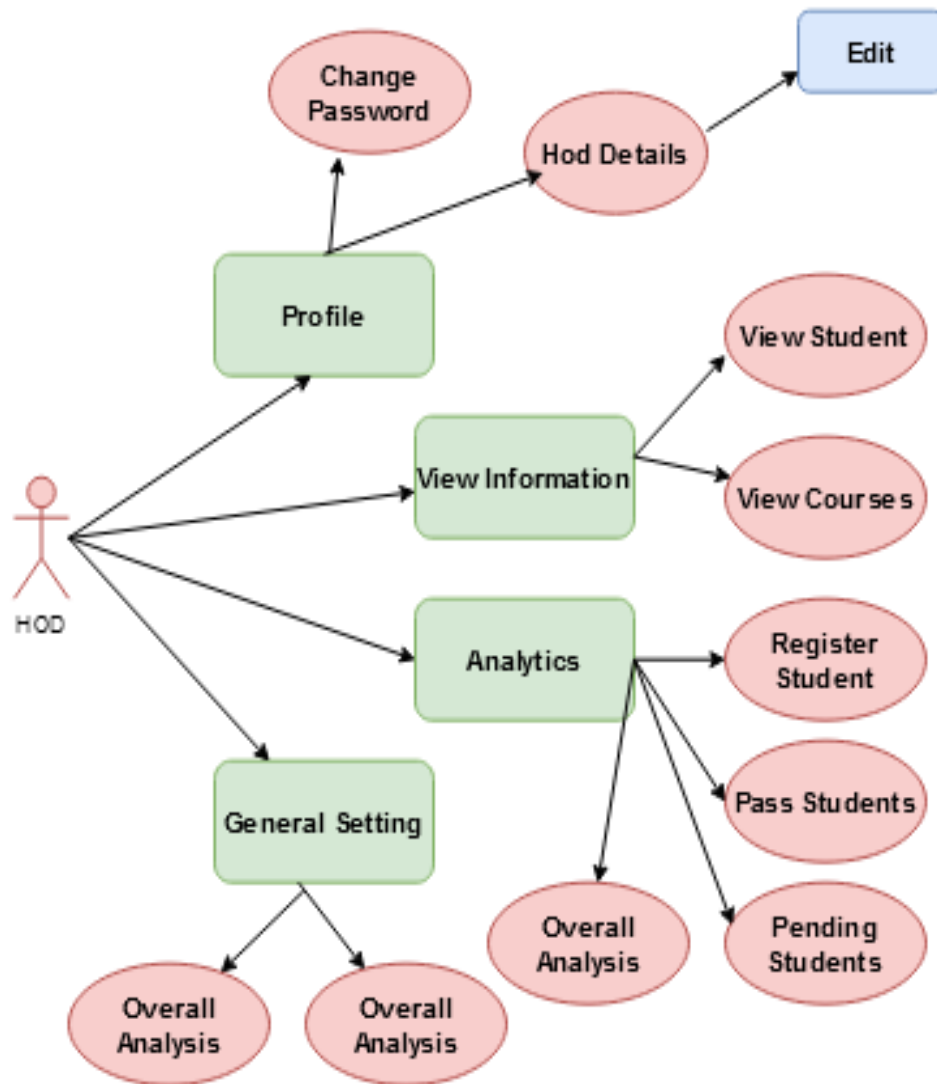
SYSTEM DESIGN AND ARCHITECTURE

4.1 E-R Diagram

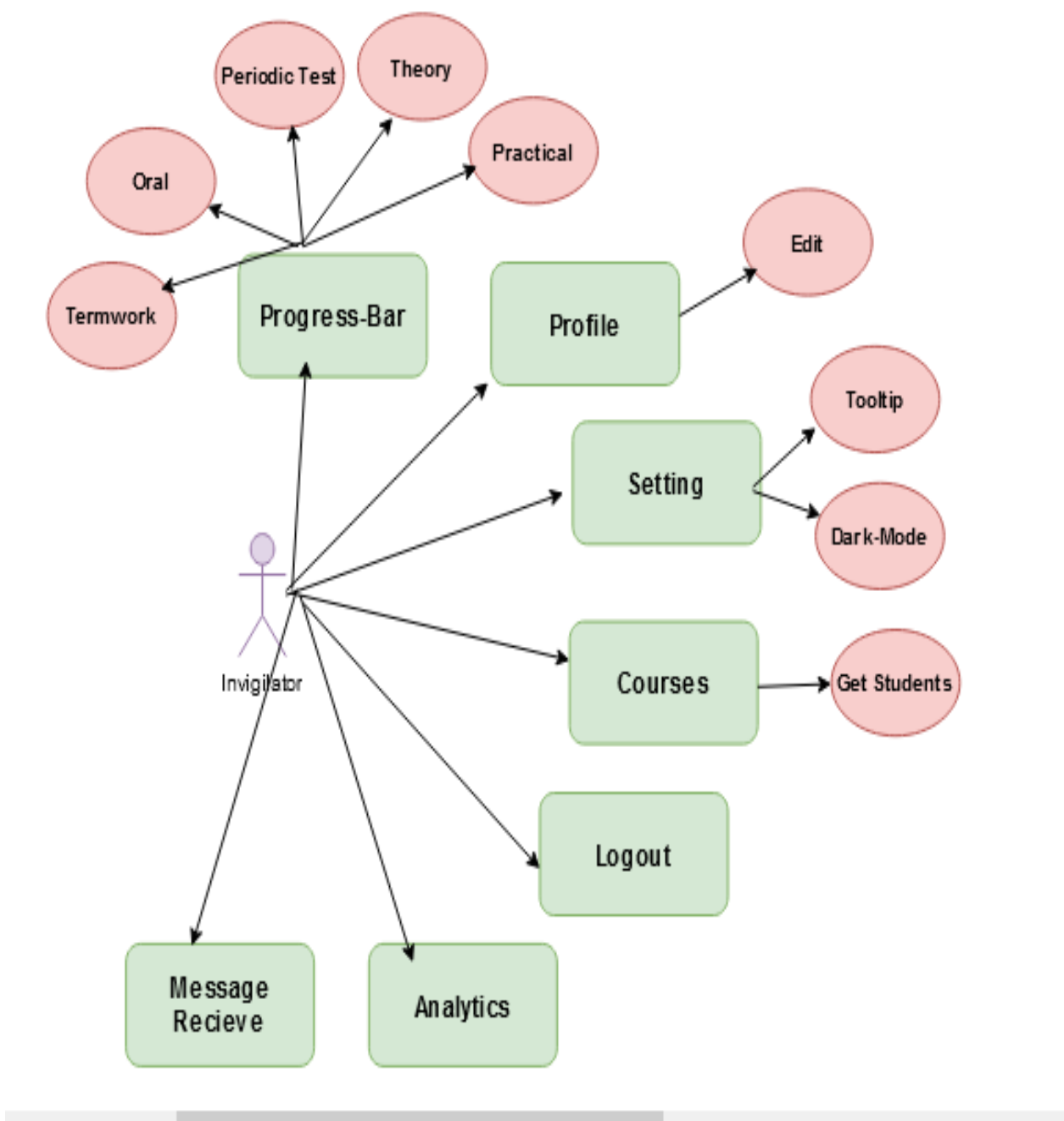
4.1.1 Admin Level Activity



4.1.2 HOD Level Activity



4.1.3 Invigilator Level Activity



Chapter 4

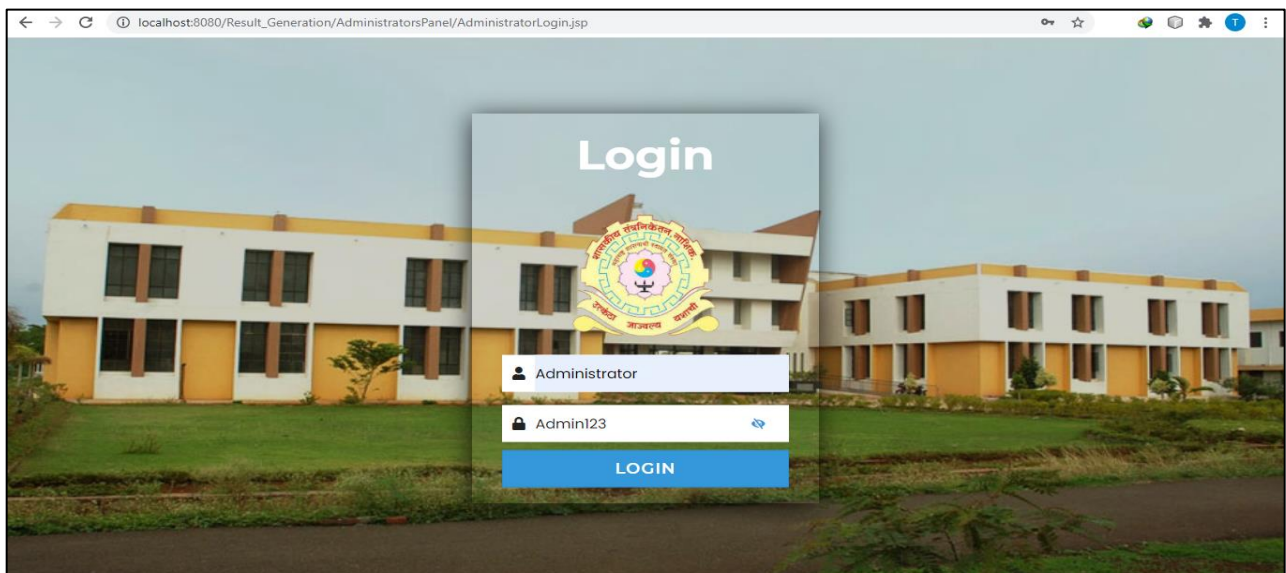
SCREENSHOTS

4.1 Screenshots

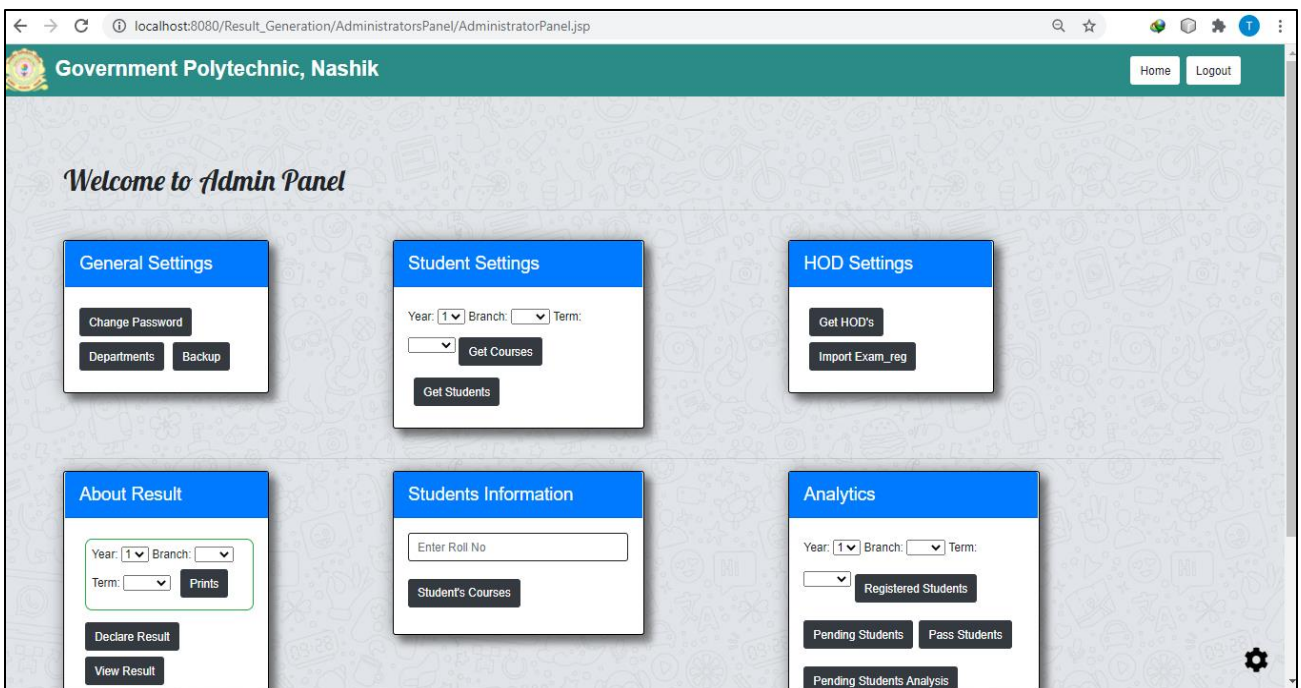
1) Home Page



2) Login Page



3) Admin Panel

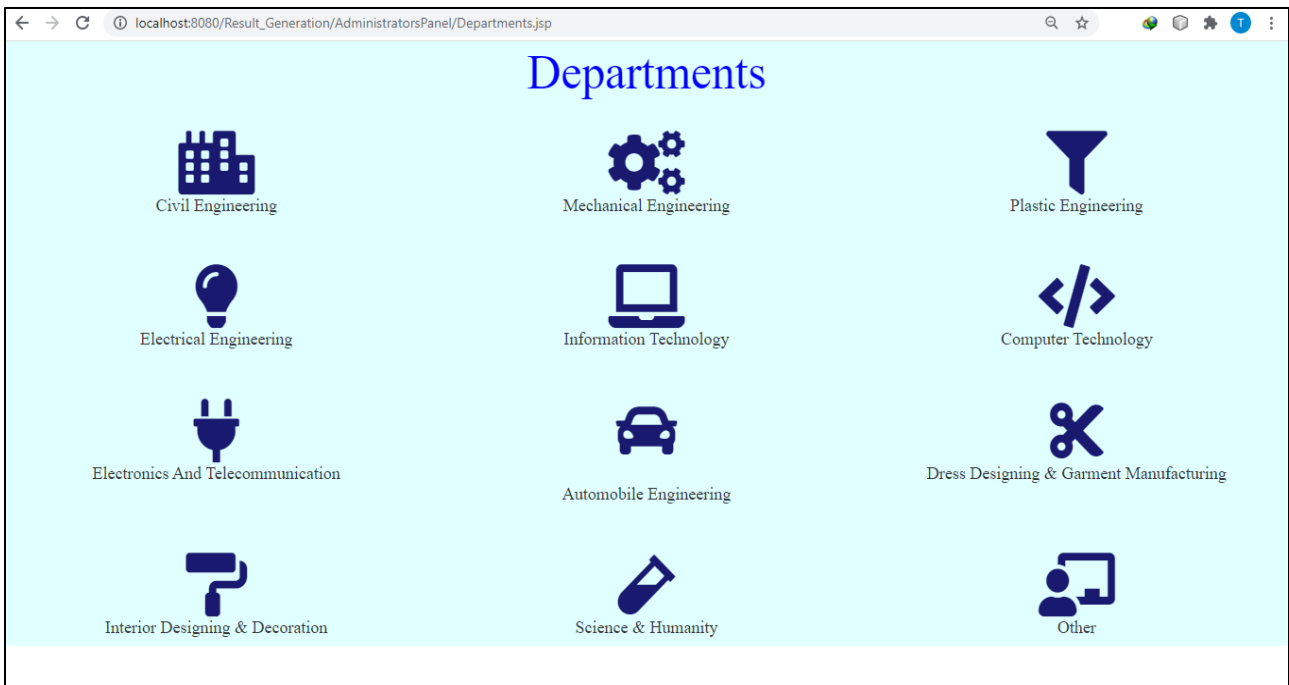


4) Admin Panel: Change Password

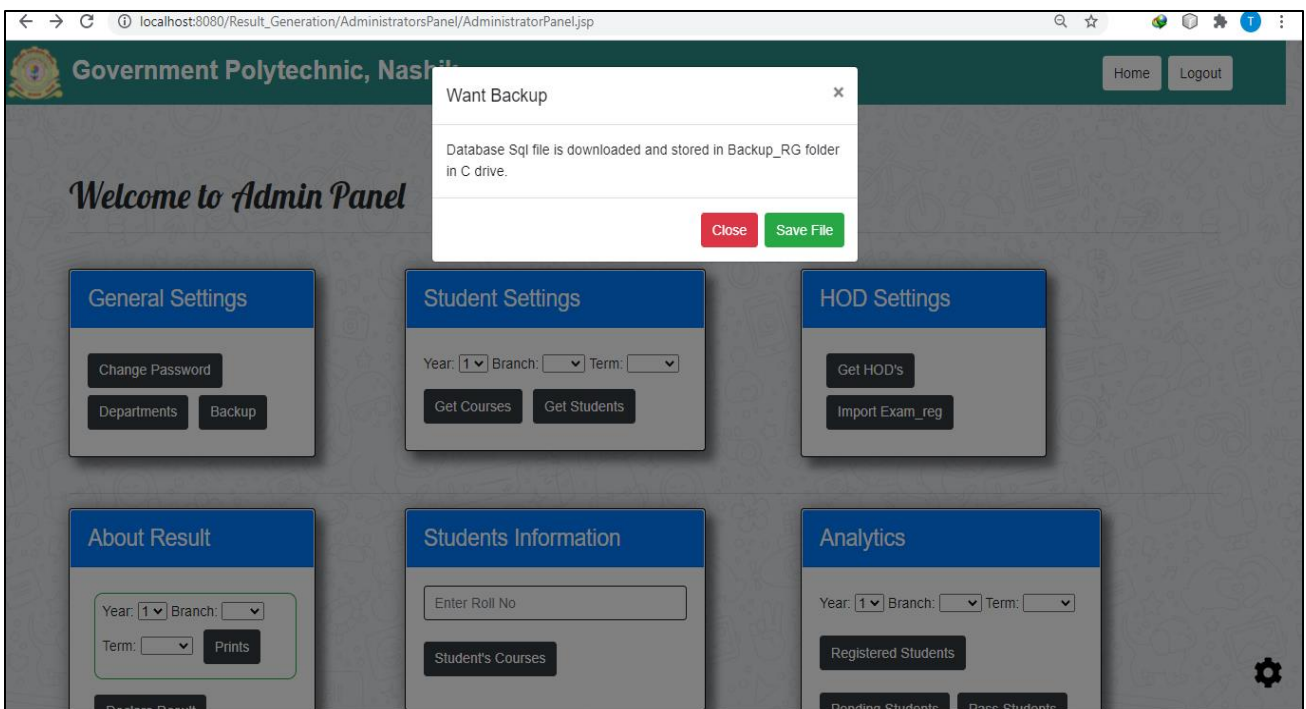
The screenshot shows the 'Change Password' form in the Admin Panel. The form is titled 'Change Password' and includes the following fields and validation messages:

- Administrator:** A text input field.
- New Password:** A text input field with validation messages:
 - ✗ 8 Characters Long
 - ✗ One Uppercase Letter
 - ✗ One Lowercase Letter
 - ✗ One Number
- Repeat Password:** A text input field with a validation message:
 - ✗ Passwords Match
- Change Password:** A blue button to submit the form.

5) Admin Panel: Department



6) Admin Panel: Backup



7) Admin Panel: Get Students

← → ↻ localhost:8080/Result_Generation/AdministratorsPanel/courseTable.jsp 🔍 ☆ 🌐 ⚙️ 🔔 ⋮

View Details of Courses

Show entries Search:

Program	Course_Credit	Total_marks	Course_Code	Course_Name	Is_Exempted	Is_Offered	Department	Term	Year
IF	6	125	IF6234	Microprocessor(MPO)	n	y	51	EVEN	2
IF	7	175	IF6238	Object Oriented Programming(OOP)	n	y	51	EVEN	2
IF	3	100	IF6301	Applied Mathematics(AMT)	n	y	51	EVEN	2
IF	5	150	IF6240	Data Communication And Networking(DCN)	n	y	51	EVEN	2
IF	3	100	IF6303	Industrial Organization and Management(IOM)	n	y	51	EVEN	2
IF	3	100	IF6434	Software Engineering(SWE)	n	y	51	EVEN	2
IF	6	50	IF6439	Scripting Technology(SPT)	n	y	51	EVEN	2
IF	7	175	IF6235	Data Structure Using C(DST)	n	y	51	ODD	2
IF	7	150	IF6236	Database Management System(DBM)	n	y	51	ODD	2
IF	5	150	IF6239	PC Architecture And Maintenance(PCM)	n	y	51	ODD	2

Showing 1 to 10 of 14 entries Previous **1** 2 Next

8) Admin Panel: Get Courses

← → ↻ localhost:8080/Result_Generation/AdministratorsPanel/studentsTable.jsp 🔍 ☆ 🌐 ⚙️ 🔔 ⋮

View Details Of Student

Show entries Search:

Id	Student_Rollno	Programme	Year	Term	Shift	Student_Name
118	185101	IF	2	EVEN	1	AHIRE KARINA SANJAY
119	185102	IF	2	EVEN	1	BACHHAV DNYANESH DIPAK
120	185103	IF	2	EVEN	1	BASTE PRIYANKA SAHEBRAO
121	185104	IF	2	EVEN	1	BHAMARE MANISH RAVINDRA
122	185105	IF	2	EVEN	1	BIRARI RUSHIKESH VISHWANATH
123	185106	IF	2	EVEN	1	BORSE KAJOL VISHWANATH
124	185107	IF	2	EVEN	1	CHAKOR ANUSHKA RATNAKAR
125	185108	IF	2	EVEN	1	CHAUDHARI DHANSHREE GOVINDA
126	185109	IF	2	EVEN	1	CHAUDHARI ROHIT CHHAGAN
127	185110	IF	2	EVEN	1	CHAURE KARINA BHANUDAS

Showing 1 to 10 of 69 entries Previous **1** 2 3 4 5 6 7 Next

9) Admin Panel: View and Edit HOD

localhost:8080/Result_Generation/AdministratorsPanel/ViewHoddata.jsp

View All Details Of HOD

Show entries

Search:

First Name	Last Name	Education	User	Department	Shift	Username	Actions
ABHUIT_DINKAR	PAISODKAR	PHD	hod	PE	1	ABHUIT_DINKAR	Edit
C_Y	SEEMIKERI	ME	hod	ME	2	C_YSS	Edit
C_Y	SEEMIKERI	ME	hod	ME	1	C_Y	Edit
N_N	GARUDE	M.B.A.	hod	DDGM	1	N_N	Edit
PRAVIN	MALI	ME	hod	IF	1	IFHOD	Edit
PRERNA_VIJAYKUMAR	RATHOD	PHD	hod	E&TC	1	PRERNA_VIJAYKUMAR	Edit
RAE	RAEL	BE	registrar	AE	1	RAE	Edit
RAJESH	SHELKE	ME	hod	EE	1	RAJESH	Edit
RCE	RCEL	BE	registrar	CE	1	RCE	Edit
RCM	RCML	BE	registrar	CM	1	hodcm	Edit

Showing 1 to 10 of 23 entries

Previous 2 3 Next

localhost:8080/Result_Generation/AdministratorsPanel/ViewHoddata.jsp

HOD DETAILS DATA UPDATE

First Name:

Last Name:

Education:

User:

Department:

Shift:

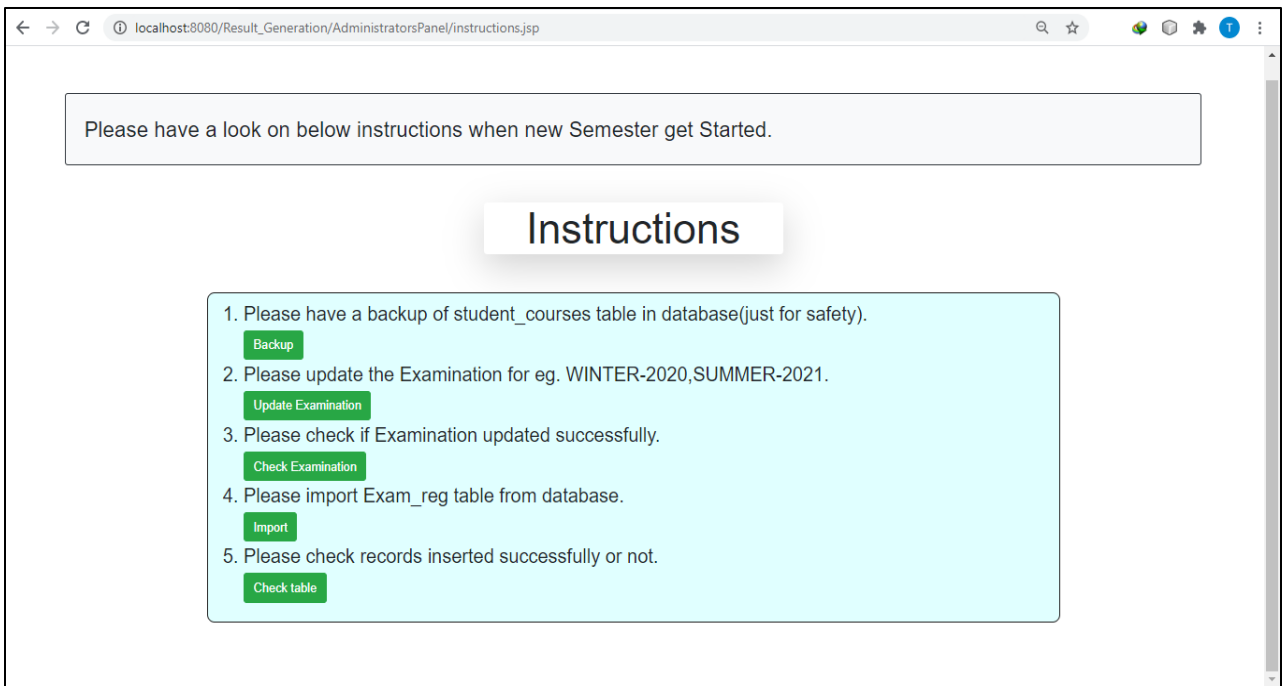
Username:

[Save](#) [Close](#)

Showing 1 to 10 of 23 entries

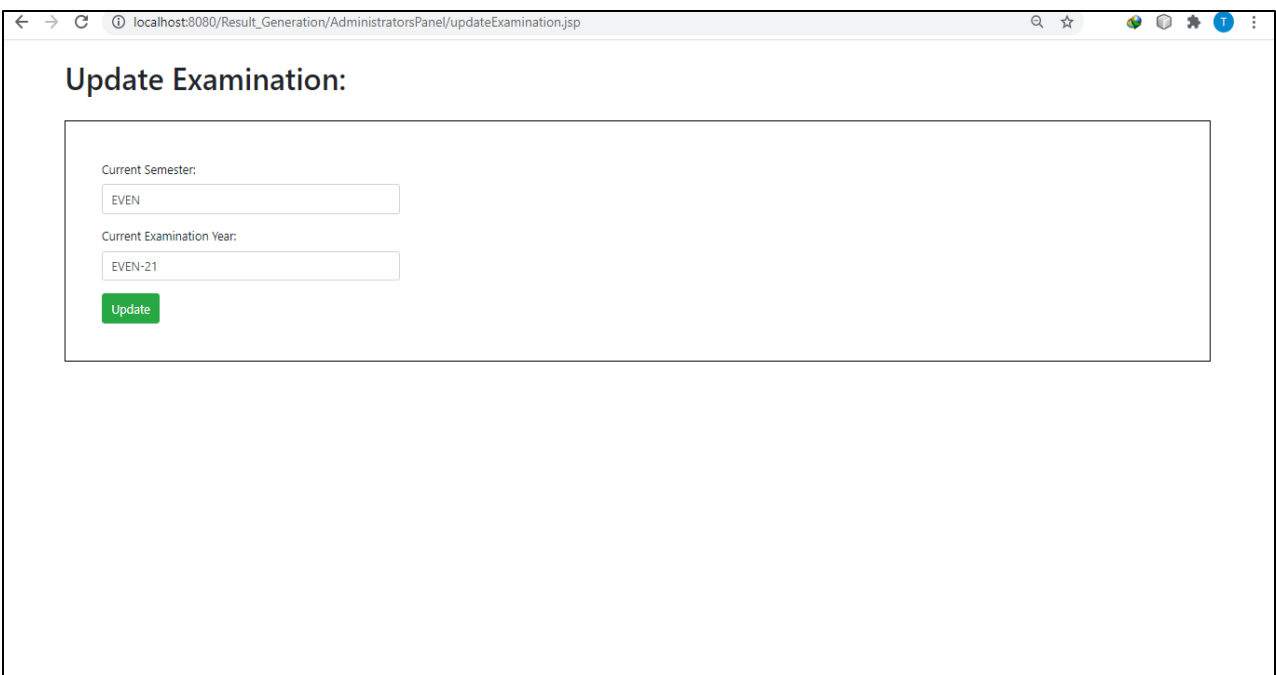
Previous 2 3 Next

10) Admin Panel: Import_Exam_reg, Update And Check Examination



A screenshot of a web browser displaying the 'Instructions' page of an Admin Panel. The browser's address bar shows 'localhost:8080/Result_Generation/AdministratorsPanel/instructions.jsp'. The page features a light gray header with the text 'Please have a look on below instructions when new Semester get Started.' Below this is a white box with the title 'Instructions' in bold. The main content is a light blue box containing a numbered list of five instructions, each followed by a green button:

1. Please have a backup of student_courses table in database(just for safety).
2. Please update the Examination for eg. WINTER-2020,SUMMER-2021.
3. Please check if Examination updated successfully.
4. Please import Exam_reg table from database.
5. Please check records inserted successfully or not.



A screenshot of a web browser displaying the 'Update Examination' page of an Admin Panel. The browser's address bar shows 'localhost:8080/Result_Generation/AdministratorsPanel/updateExamination.jsp'. The page has a white background with the title 'Update Examination:' in bold. Below the title is a form with two input fields and one button:

Current Semester:

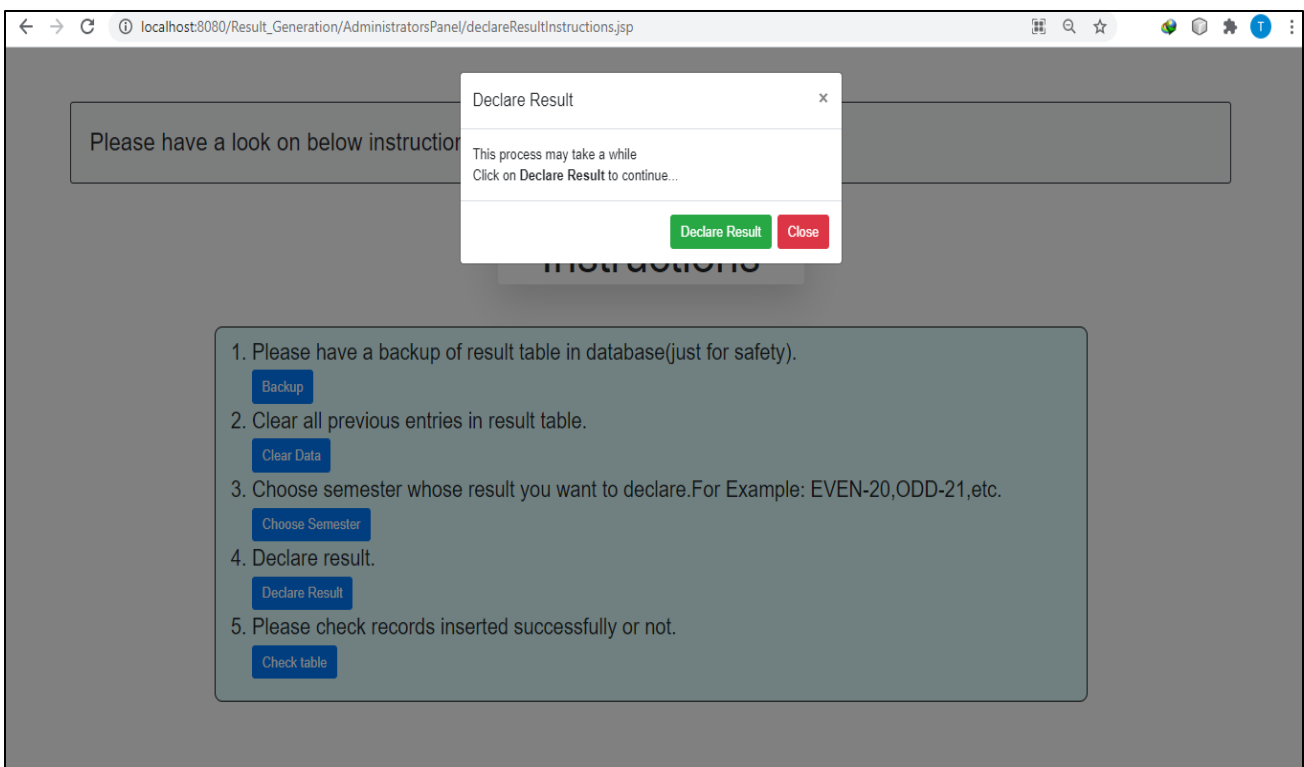
Current Examination Year:

12) Admin Panel: Declare Result

Please have a look on below instructions while result declaration.

Instructions

1. Please have a backup of result table in database(just for safety).
[Backup](#)
2. Clear all previous entries in result table.
[Clear Data](#)
3. Choose semester whose result you want to declare.For Example: EVEN-20,ODD-21,etc.
[Choose Semester](#)
4. Declare result.
[Declare Result](#)
5. Please check records inserted successfully or not.
[Check table](#)



13) Admin Panel: View Result

localhost:8080/Result_Generation/AdministratorsPanel/viewResult1.jsp

RESULT SUMMER-2020
(Result of I-Even/II-Even Regular Students Only)

Enter Roll Number

Result of EVEN-19 Examination

Seat No: 185102 Name: BACHHAV DNYANESH DIPAK

Diploma Programme in IF

Course code	Course Name	TH	PT	TOTAL	TW	PR	OR
IF6234	Microprocessor(MPO)	73	19	92	22	--	--
IF6238	Object Oriented Programming(OOP)	75	20	95	24	48	--
IF6301	Applied Mathematics(AMT)	75	20	95	--	--	--
IF6240	Data Communication And Networking(DCN)	75	20	95	24	--	24
IF6303	Industrial Organization and Management(IOM)	75	20	95	--	--	--
IF6434	Software Engineering(SWE)	75	20	95	--	--	--
IF6439	Scripting Technology(SPT)	--	--	--	23	23	--

Current Credits	Previous Credits	Total Credits	Requisite Credits	Total Backlog	Grand Total	Out Of	Result
33	101	134	66	0	755	800	PASS

TH - Theory

PT - Periodic Test

TW - Term Work

PR - Practical

OR - Oral

CR - Credits

S - Marks Condensed

-- Shifted to Curriculum 2016

MAX - Maximum

MIN - Minimum

OBT - Obtained

EX - Exemption

PC - Pending Courses

COND - Condensation

BL - Backlog Course Pending

--

DFRNC - Disallowed to Register for new courses

ARRNC - Allowed to Register for new courses

- Backlog Courses

* - Fail

@ - Pass With Grace Marks

Reg.Credits - Further Requisite Credits

CC - Non Exam Credit Course completed

& - Grace Marks for Dyslexia

Instruction for Result published on net of website <http://www.gpnashik.ac.in>, Government polytechnic is not responsible for any inadvertent error that may have crept in the result being published on net. The Result published on net are for immediate information only. This cannot be treated as original statement of marks, Contact Examination Cell of Government Polytechnic, Nashik for any queries related to result.

14) HOD Panel: Panel

localhost:8080/Result_Generation/HODPanel/HODPanel.jsp

Government Polytechnic, Nashik

Welcome To HOD Panel

Account Setting

View Information

Select Student BranchWise

Analytics

Year: Branch: Term:

15) HOD Panel: Change Password

Change Password

IFHOD

New Password

✖ 8 Characters Long
✖ One Uppercase Letter
✖ One Lowercase Letter
✖ One Number

Repeat Password

✖ Passwords Match

Change Password

Change Password

IFHOD

New Password

✔ 8 Characters Long
✔ One Uppercase Letter
✔ One Lowercase Letter
✔ One Number

Repeat Password

✔ Passwords Match

Go head

Ok

16) HOD Panel: Hod Details

HOD Details

First Name: PRAVIN

Last Name: MALI

User Education: ME

Program: IF

User Type: hod

Username: IFHOD

User Id: 25

Shift: 1

[Update](#)

HOD Details Update

First Name: PRAVIN

Last Name: MALI

Education: ME

User: hod

Department: IF

Shift: 1

Username: IFHOD

[Save Changes](#) [Close](#)

17) HOD Panel: Available Courses

View All Details Of Course

Show entries

Search:

Program	Course_Credit	Total_marks	Course_Code	Course_Name	Is_Exempted	Is_Offered	Department	Term	Year
IF	5	150	IF6101	Communication Skillss(CMS)	y	y	51	EVEN	1
IF	4	100	IF6104	Engineering Mathematics(EMT)	y	y	51	EVEN	1
IF	6	150	IF6106	Applied Chemistry(CHY)	y	y	51	EVEN	1
IF	6	150	IF6113	Fundamentals of Electrical Technology(FET)	y	y	51	EVEN	1
IF	6	150	IF6118	Elements Of Electronics(EOE)	y	y	51	EVEN	1
IF	7	150	IF6237	Programming In C (PIC)	y	y	51	EVEN	1
IF	6	125	IF6234	Microprocessor(MPO)	n	y	51	EVEN	2
IF	7	175	IF6238	Object Oriented Programming(OOP)	n	y	51	EVEN	2
IF	3	100	IF6301	Applied Mathematics(AMT)	n	y	51	EVEN	2
IF	5	150	IF6240	Data Communication And Networking(DCN)	n	y	51	EVEN	2

Showing 1 to 10 of 40 entries

Previous [1](#) [2](#) [3](#) [4](#) Next

18) HOD Panel: View Students

localhost:8080/Result_Generation/HODPanel/ViewStudent.jsp?

View Details Of Student

Show 10 entries

Search:

Id	Student_Rollno	Programme	Year	Term	Shift	Student_Name
1	175101	IF	3	EVEN	1	ADHANGLE YASHASHREE VINOD
2	175102	IF	3	EVEN	1	AMRUTKAR ROHIT PURUSHOTTAM
3	175103	IF	3	EVEN	1	ASHA ARUN SONAWANE
4	175104	IF	3	EVEN	1	AWARE SAKSHI ARUN
5	175105	IF	3	EVEN	1	AWARE SHWETA VILAS
6	175106	IF	3	EVEN	1	BACHHAV SAKSHI SAMADHAN
7	175107	IF	3	EVEN	1	BADGUJAR DHANSHRI DILIP
8	175108	IF	3	EVEN	1	BEDASE MRUGNAYANI ABHIMANYU
9	175109	IF	3	EVEN	1	BHAVESH SHARAD YEOLE
10	175110	IF	3	EVEN	1	BHIRUD HIMANI VILAS

Showing 1 to 10 of 200 entries

Previous 1 2 3 4 5 ... 20 Next

19) HOD Panel: Register

localhost:8080/Result_Generation/HODPanel/ViewInvigilator.jsp?

View All Details Of Invigilators

Show 10 entries

Search:

Id	Invigilator Name	Base	Qualification	Designation	Specialized Subject1	Specialized Subject2	Specialized Subject3	Specialized Subject4	Department Id
Administrator	Administrator	indigenous	M.E(Computer Technology)	Administrator	IF6240	IF6238	IF6544	CM6238	51
DTEGPN4444	Radhi Jay Shetty	indigenous	B.Tech(Computer Technology)	Lecturer	IF6240	IF6238	IF6544	CM6544	51
DTEGPN4545	Nilesh	indigenous	M.S	Lecturer	CM6544	IF6238	CM6238	None	51

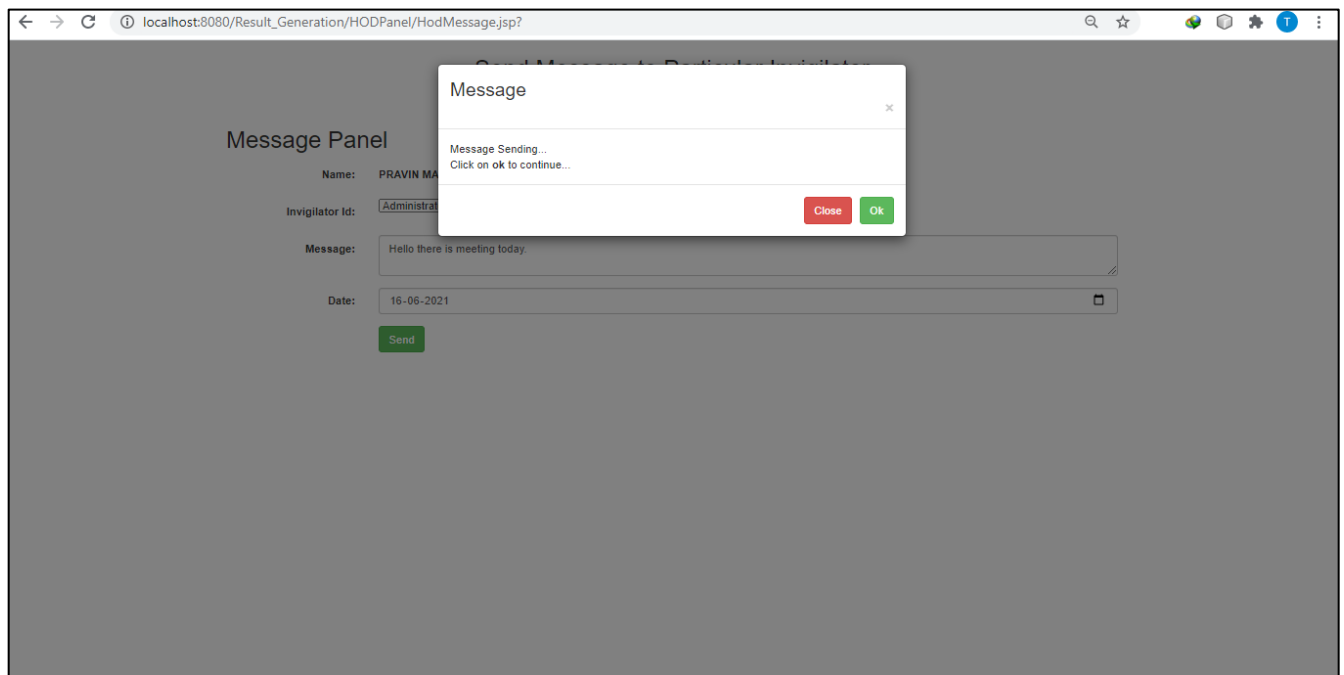
Showing 1 to 3 of 3 entries

Previous 1 Next

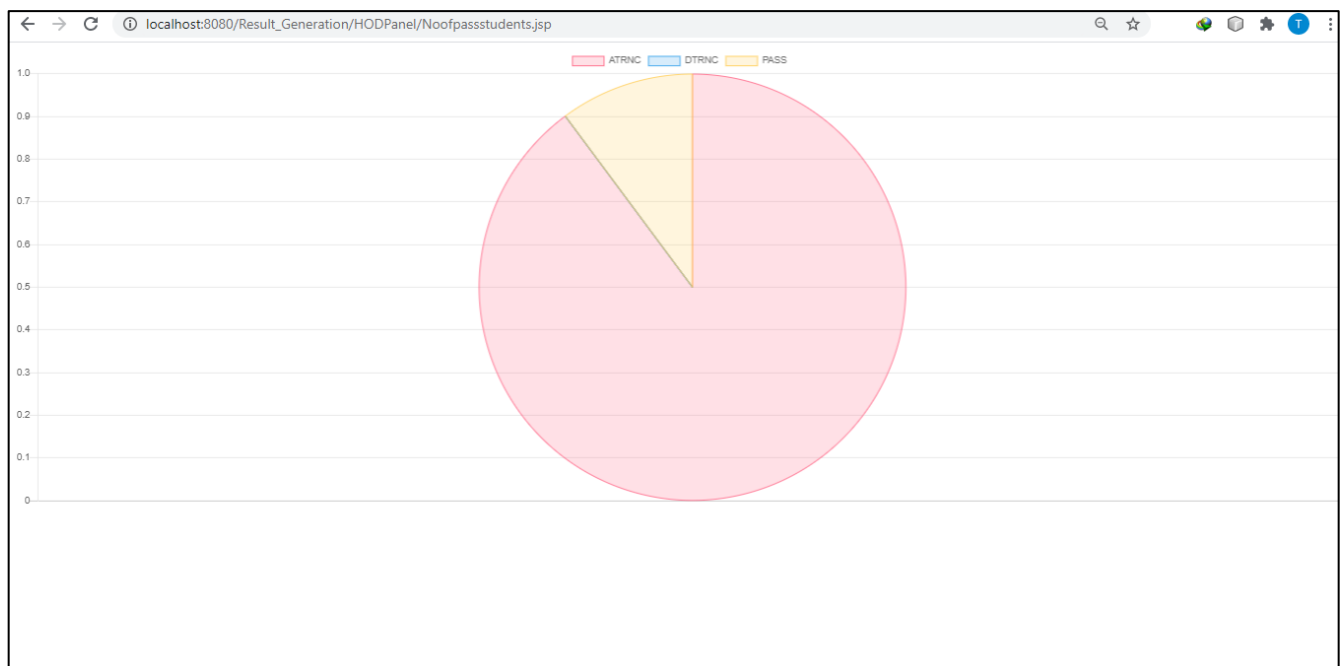
20) HOD Panel: Message System

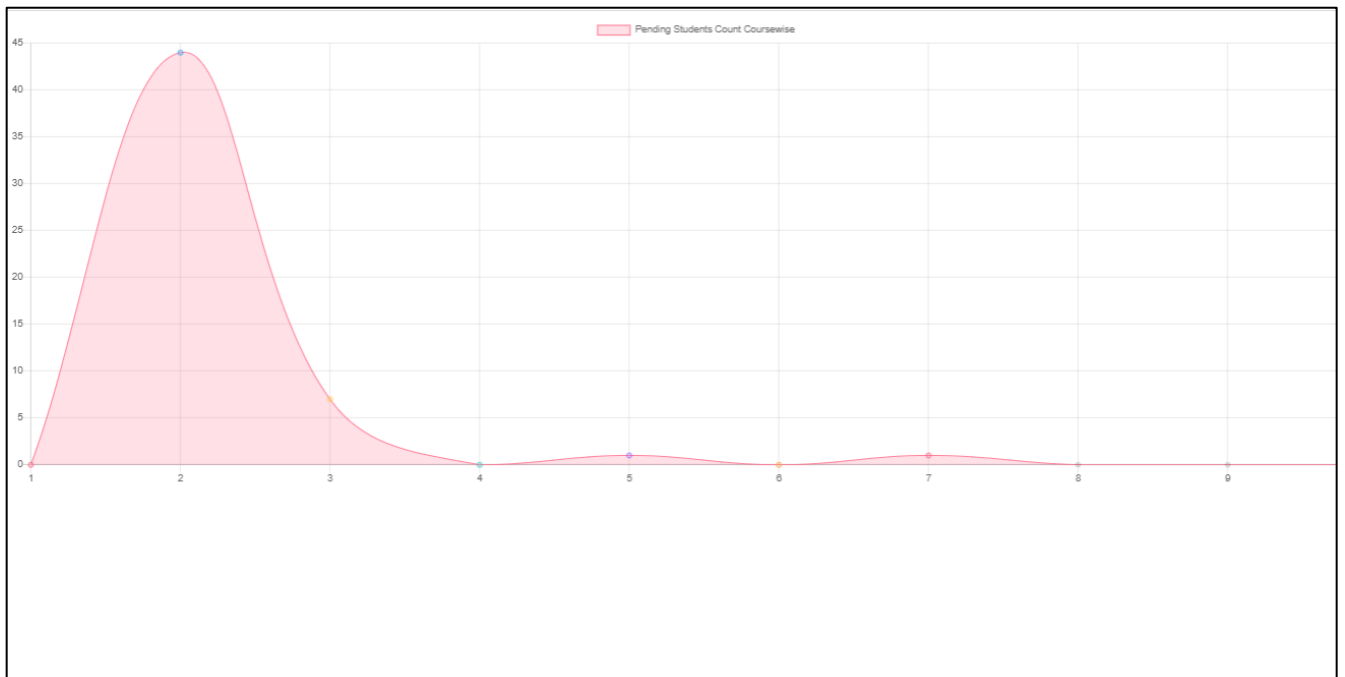
A web browser window showing a form titled "Send Message to Particular Invigilator". Below the title is a subtitle: "Basic info, Such as your name that you use on your account." The form is labeled "Message Panel" and contains the following fields:

- Name:** PRAVIN MALI
- Invigilator Id:** A dropdown menu with "Administrator" selected.
- Message:** A text input field containing "Hello there is meeting today." with a clear button (X) on the right.
- Date:** A date input field containing "16-06-2021" with a calendar icon on the right.
- Send:** A green button at the bottom.



21) HOD Panel: Analytics





← → ↻ ⓘ localhost:8080/Result_Generation/HODPanel/OverallAnalysisWithTable.jsp 🔍 ☆ 🌐 🏠 ⚙️ ⓘ ⋮

Overall Analysis

Sr No	Course Name	Course Code	Registered Students	Pending Students	Pass Students
1	Microprocessor(MPO)	IF6234	58	0	7
2	Object Oriented Programming(OOP)	IF6238	58	50	7
3	Applied Mathematics(AMT)	IF6301	68	0	8
4	Data Communication And Networking(DCN)	IF6240	60	50	10
5	Industrial Organization and Management(IOM)	IF6303	58	0	8
6	Software Engineering(SWE)	IF6434	59	0	6
7	Scripting Technology(SPT)	IF6439	53	0	7

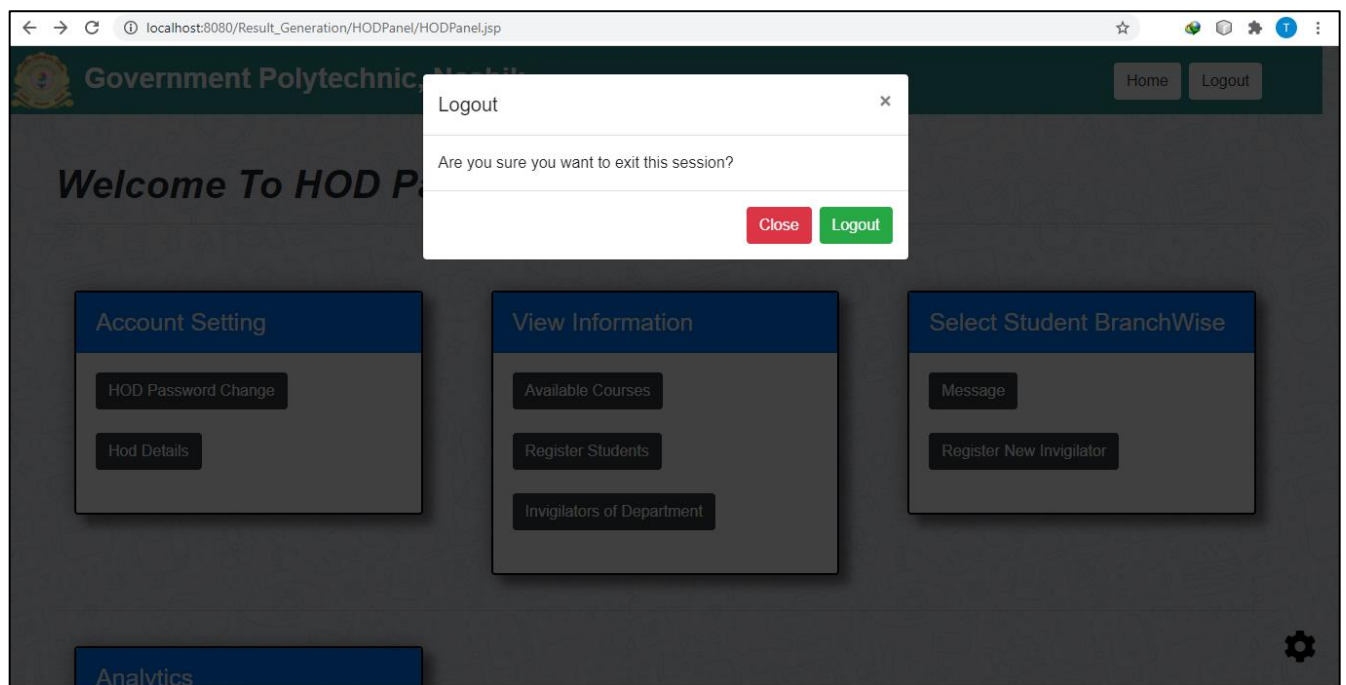
22) HOD Panel: Register Invigilator

The screenshot shows a web browser window with the URL `localhost:8080/Result_Generation/HODPanel/InvigilatorRegister.jsp?`. The page title is "Add Invigilator's Details" with a subtitle "Basic info, Such as your name that you use on your account." Below this is a form titled "Profile" containing the following fields:

- Invigilator Name:
- Invigilator Id:
- Invigilator Base:
- Experience:
- Designation:
- Email:
- Contact:
- Qualification:
- BirthYear:
- Address:
- Department:
- Specialized Subject1:
- Specialized Subject2:
- Specialized Subject3:
- Specialized Subject4:
- Password:

A green "Submit" button is located at the bottom of the form.

23) Logout



24) Invigilator Panel: Panel

The screenshot shows a web application interface for an invigilator panel. At the top, there is a purple header bar with a search icon, a mail icon, a settings icon, and a user profile icon labeled "Administrator Information Technology". Below the header is a table with four columns: "No.", "Subjects", "Department", and "Action". The table contains four rows of data. Below the table is a light blue box with a "Note:" and a message.

No.	Subjects	Department	Action
1.	Data Communication And Networking(DCN)	IF	RegisteredStudents
2.	Object Oriented Programming(OOP)	IF	RegisteredStudents
3.	Advanced Java Programming(ADJ)	IF	RegisteredStudents
4.	Object Oriented Programming(OOP)	CM	RegisteredStudents

Note:
Please click on the getStudents to get students register for your subject.

25 Invigilator Panel: View Register Students and Edit

The screenshot shows a web application interface for viewing and editing registered students. At the top, there is a header bar with a search icon, a mail icon, a settings icon, and a user profile icon labeled "Administrator Information Technology". Below the header is a table with columns: "Roll No.", "PT", "TH", "TW", "PR", "OR", and "Actions". The table contains 11 rows of data. Below the table is a light blue box with a "Note:" and a message. At the bottom, there is a blue button labeled "Export to XLS file".

Roll No.	PT	TH	TW	PR	OR	Actions
185101	18	54	22	0	22	Edit
185102	20	75	24	0	24	Edit
185103	15	55	20	0	20	Edit
185104	19	69	22	0	23	Edit
185105	20	74	23	0	23	Edit
185106	20	70	23	0	23	Edit
185107	20	73	24	0	24	Edit
185108	19	68	23	0	23	Edit
185110	20	71	24	0	24	Edit
185111	20	0	0	0	0	Edit

Showing 1 to 10 of 60 entries

Previous 1 2 3 4 5 6 Next

Export to XLS file

localhost8080/Result_Generation/InvigilatorsPanel/getStudents2.jsp

Show 10 entries

Roll No.	PT
185101	18
185102	20
185103	15
185104	19
185105	20
185106	20
185107	20
185108	19
185110	20
185111	20

Showing 1 to 10 of 60 entries

STUDENT ACADEMICS

Roll: 185101

TH: 54

PT: 18

TW: 22

PR: 0

OR: 22

Save Close

Search:

OR	Actions
2	Edit
4	Edit
0	Edit
3	Edit
3	Edit
3	Edit
4	Edit
3	Edit
4	Edit
3	Edit
4	Edit
0	Edit

Previous 1 2 3 4 5 6 Next

26) Invigilator Panel: Excel Sheet

Download.xls - Excel

Tejas Patil

File Home Insert Page Layout Formulas Data Review View Help Tell me what you want to do

Clipboard Font Alignment Number Conditional Formatting Styles Cells Editing

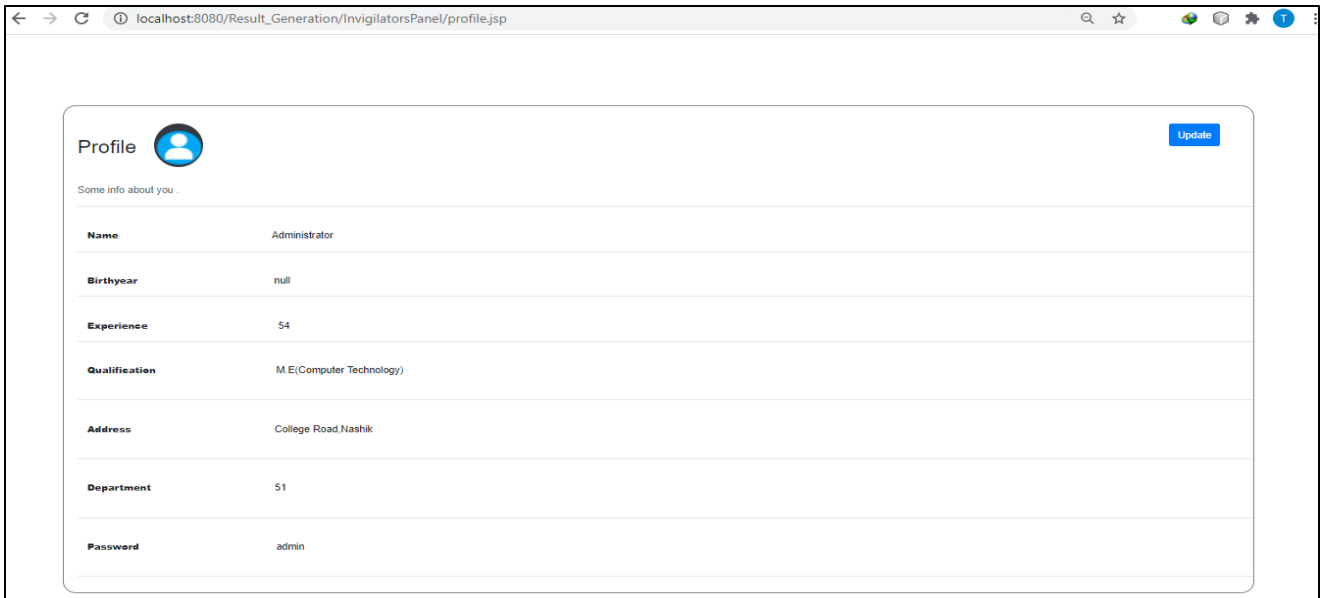
A1 Government Polytechnic, Nashik

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Government Polytechnic, Nashik															
2																
3																
4	An autonomous institute of Government of Maharashtra.															
5																
6	Course Code:IF6240 Course Name:Data Communication And Networking(DCN)															
7																
8	Teacher's Name:Administrator Department:Information Technology															
9																
10	Roll No.	PT	TH	TW	PR	OR										
11	185101	18	54	22	0	22										
12	185102	20	75	24	0	24										
13	185103	15	55	20	0	20										
14	185104	19	69	22	0	23										
15	185105	20	74	23	0	23										
16	185106	20	70	23	0	23										
17	185107	20	73	24	0	24										
18	185108	19	68	23	0	23										
19	185110	20	71	24	0	24										
20	185111	20	0	0	0	0										
21	185112	20	0	0	0	0										

Sheet0

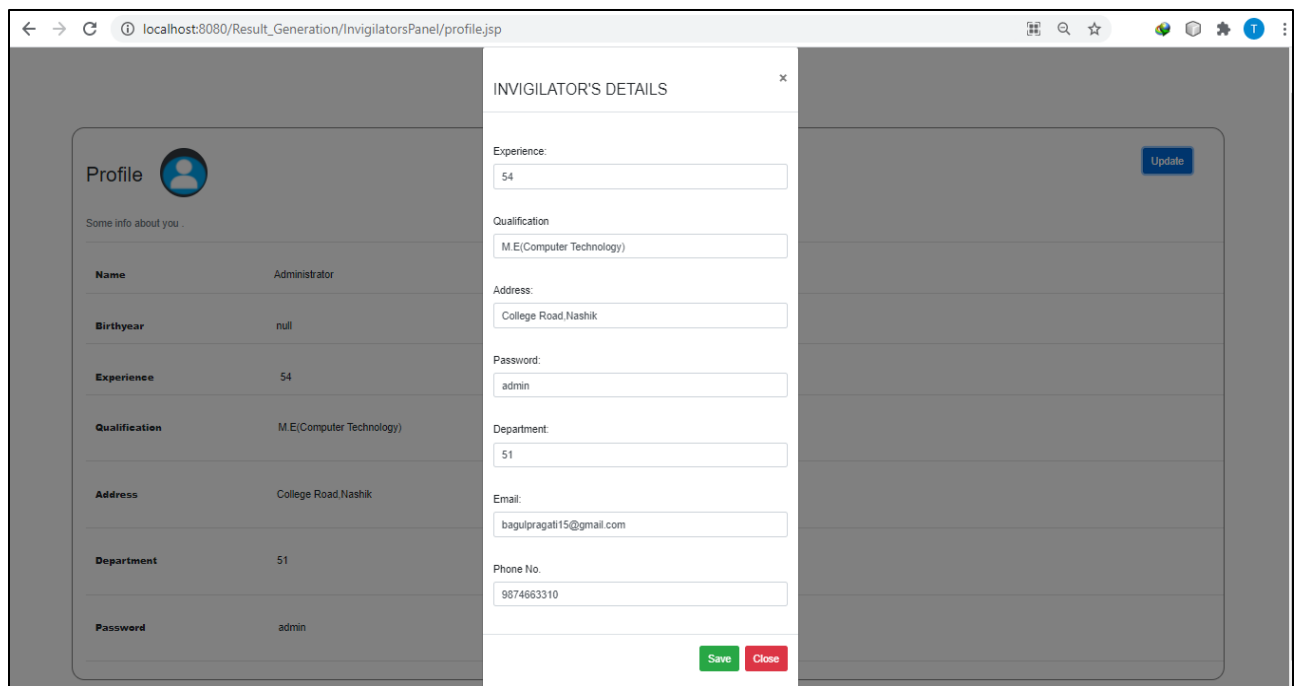
Ready

27) Invigilator Panel: Profile



The screenshot shows a web browser window with the URL `localhost:8080/Result_Generation/InvigilatorsPanel/profile.jsp`. The page displays a profile section with a user icon and an 'Update' button. Below the icon, there is a table containing the following information:

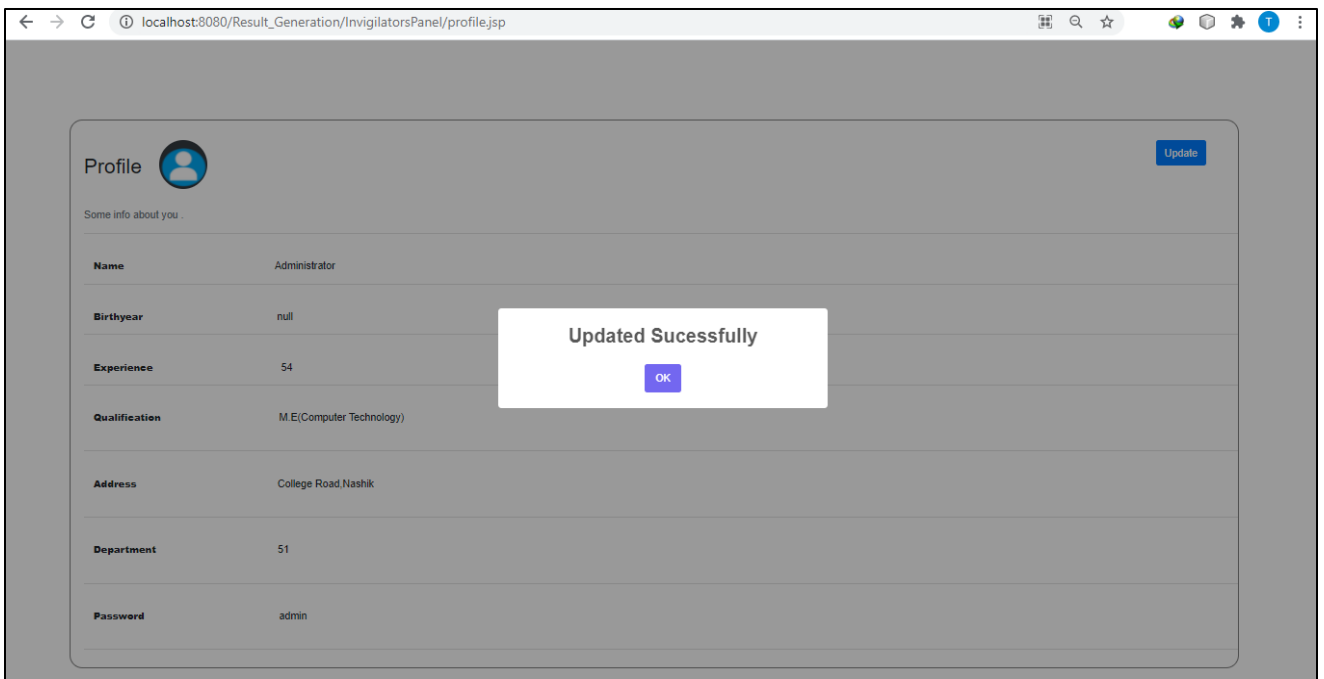
Some info about you .	
Name	Administrator
Birthyear	null
Experience	54
Qualification	M.E(Computer Technology)
Address	College Road,Nashik
Department	51
Password	admin



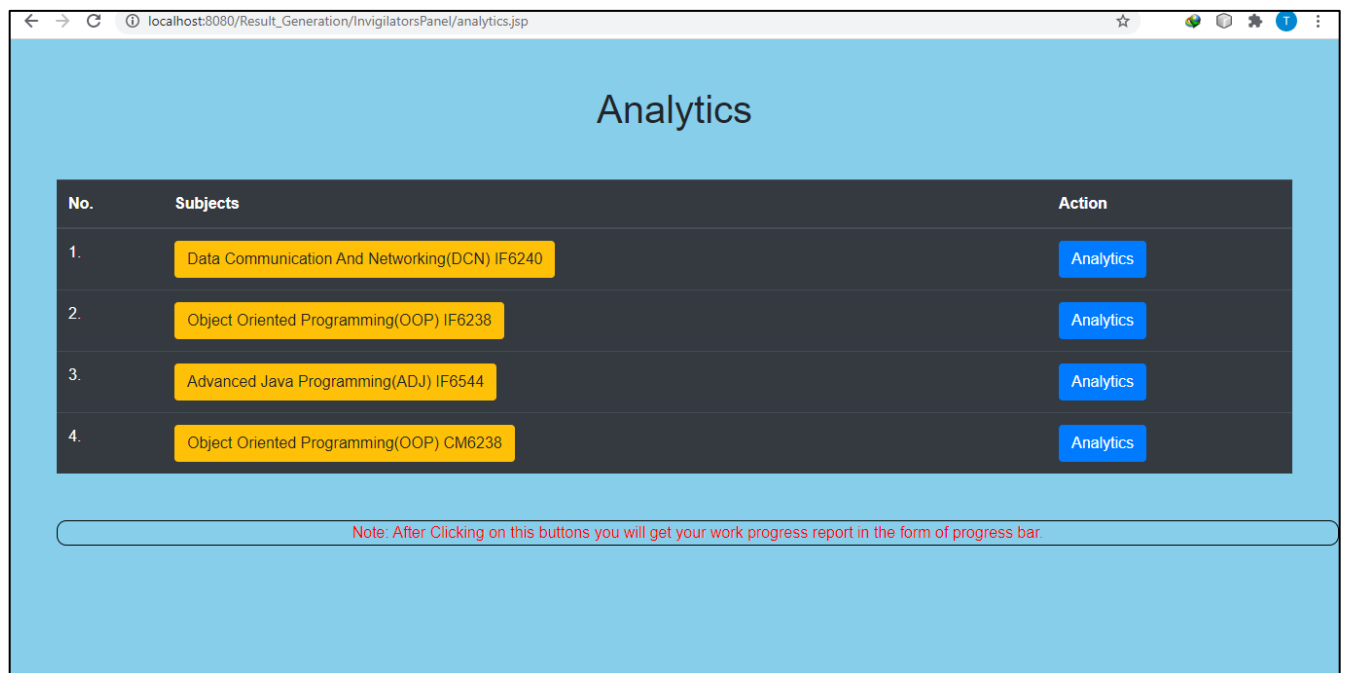
The screenshot shows the same web browser window, but with a modal titled 'INVIGILATOR'S DETAILS' open. The modal contains input fields for the following details:

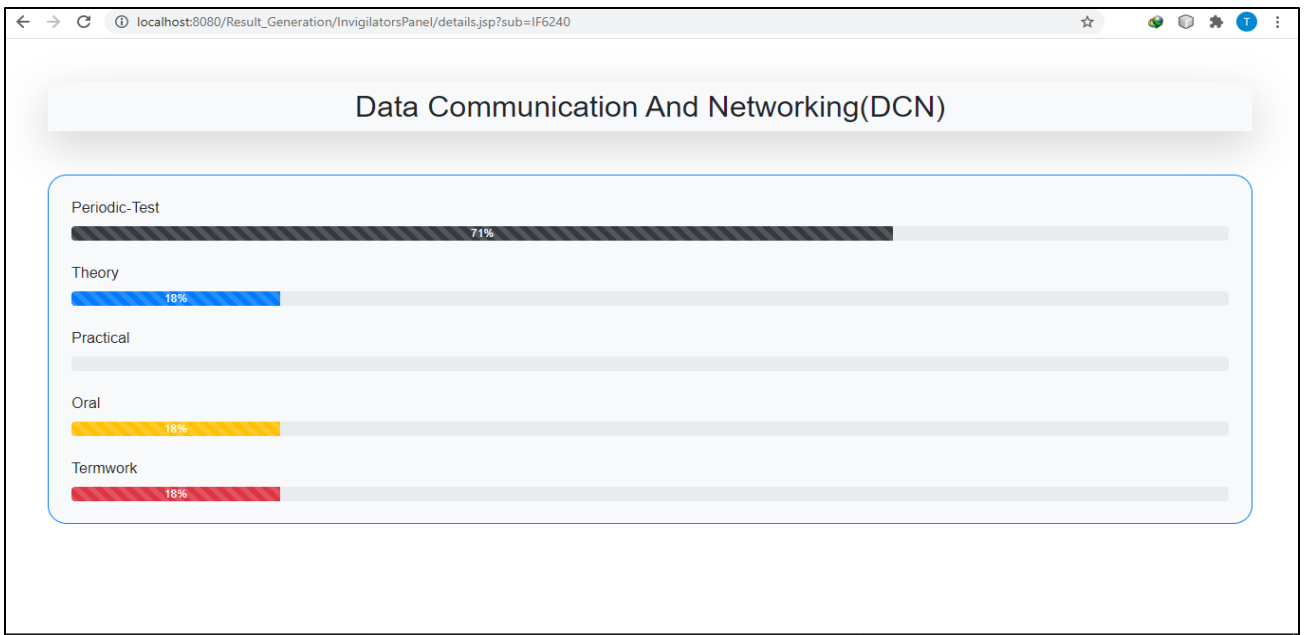
- Experience: 54
- Qualification: M.E(Computer Technology)
- Address: College Road,Nashik
- Password: admin
- Department: 51
- Email: bagulpragati15@gmail.com
- Phone No.: 9874663310

At the bottom of the modal, there are 'Save' and 'Close' buttons. The background profile table is visible but dimmed.

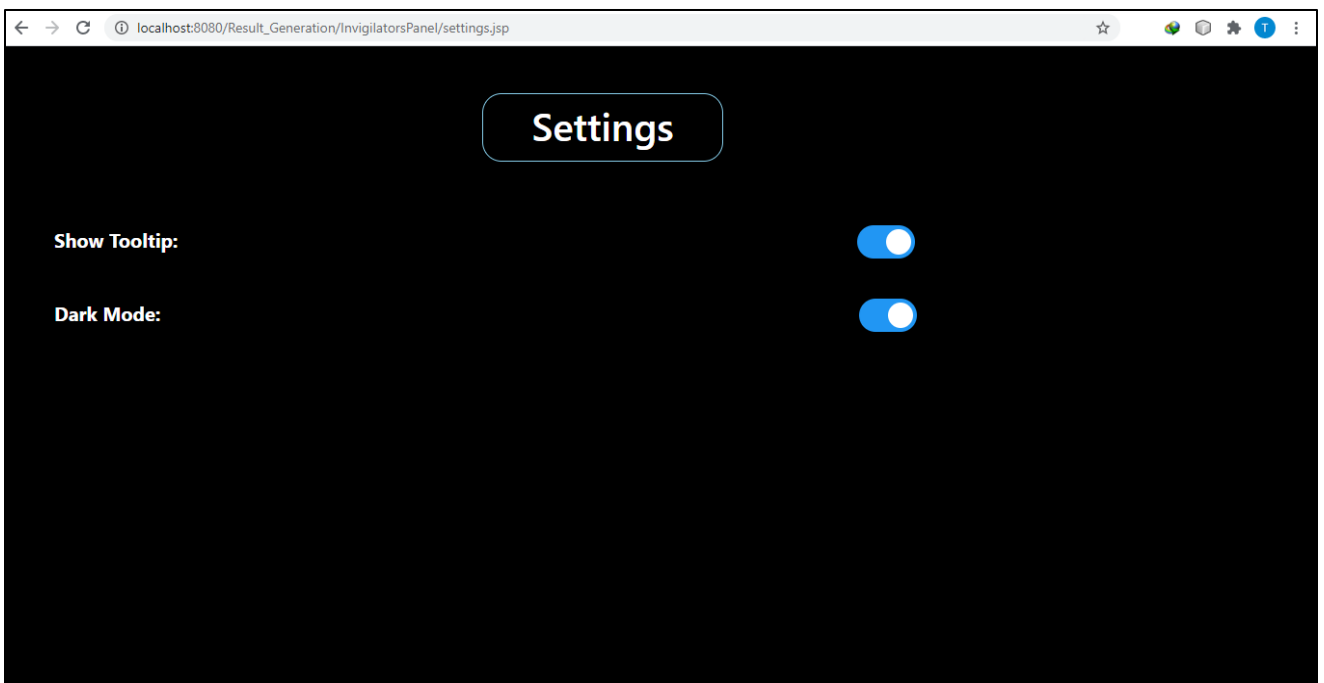


28) Invigilator Panel: Analytics

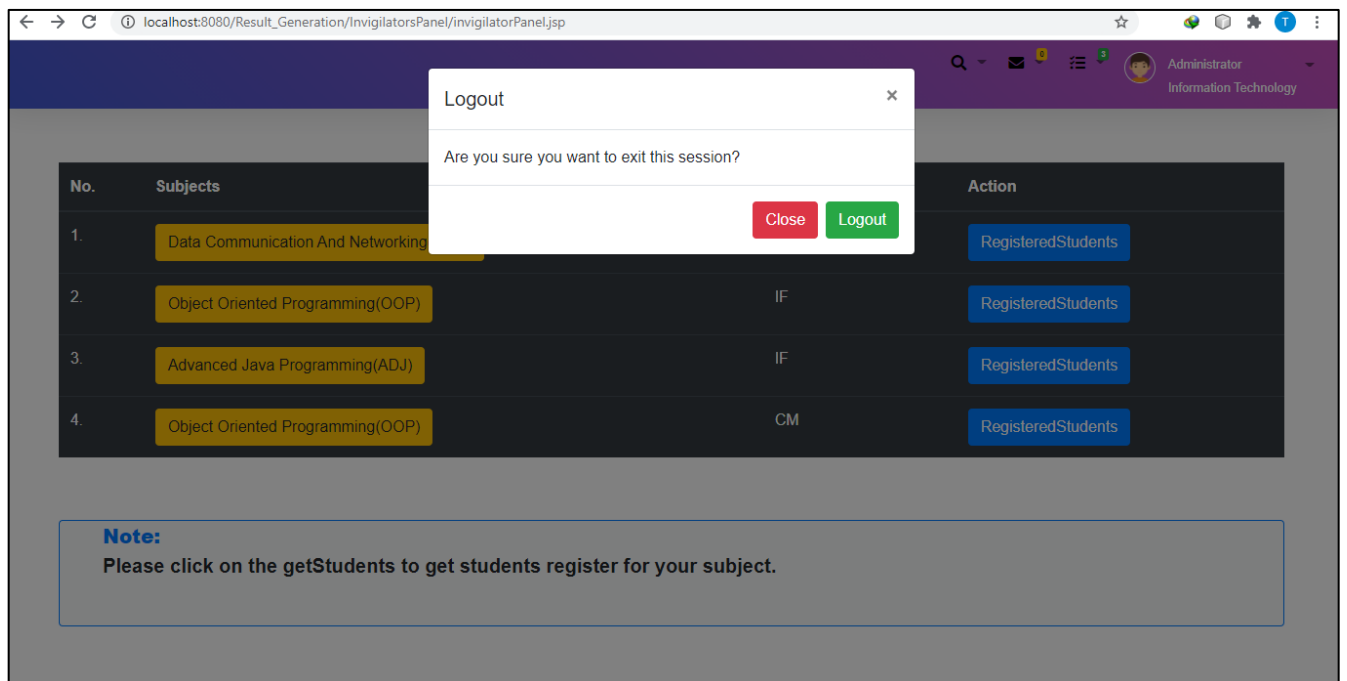




29) Invigilator Panel: Setting



30) Invigilator Panel: Logout



Chapter 5

TESTING

System Testing

System testing tests the system as a whole. Once all the components are integrated, the application as a whole is tested rigorously to see that it meets the specified Quality Standards. This type of testing is performed by a specialized testing team.

System testing is important because of the following reasons:

1. System testing is the first step in the Software Development Life Cycle, where the application is tested as a whole.
2. The application is tested thoroughly to verify that it meets the functional and technical specifications.

5.1 Types of Testing

5.1.1 Unit Testing

This type of testing is performed by developers before the setup is handed over to the testing team to formally execute the test cases. Unit testing is performed by the respective developers on the individual units of source code assigned areas. The goal of unit testing is to isolate each part of the program and show that individual parts are correct in terms of requirements and functionality.

5.1.2 Integration Testing

Integration testing is defined as the testing of combined parts of an application to determine if they function correctly. Integration testing can be done in two ways: Bottom up integration testing and Top-down Integration testing.

5.1.3 Functional Testing

Functional tests provide systematic demonstrations that functions tested are available as specified by the business and technical requirements, system documentation, and user manuals. Functional testing is centered on the following items:

- Valid Input: Identified classes of valid input must be accepted.
- Invalid Input: Identified classes of invalid input must be rejected.

- Functions: Identified functions must be exercised.
- Output: Identified classes of application outputs must be exercised.

5.1.4 System Testing

System testing tests the system as a whole. Once all the components are integrated, the application as a whole is tested rigorously to see that it meets the specified Quality Standards. This type of testing is performed by a specialized testing team.

5.1.5 White Box Testing

White-box testing is the detailed investigation of internal logic and structure of the code. White-box testing is also called glass testing or open-box testing. In order to perform white-box testing on an application, a tester needs to know the internal workings of the code.

5.1.6 Black Box Testing

The technique of testing without having any knowledge of the interior workings of the application is called black-box testing. The tester is oblivious to the system architecture and does not have access to the source code. Typically, while performing a black-box test, a tester will interact with the system's user interface by providing inputs and examining outputs without knowing how and where the inputs are worked upon.

5.1.7 Acceptance Testing

This is conducted by the Quality Assurance Team who will gauge whether the application meets the intended specifications and satisfies the client's requirement.

5.2 Test Cases

5.2.1 Admin Panel

Test Case Id	Test Case Objective	Steps	I/P Data	Expected Result	Actual Result	Status
TC_1	To check admin is successfully login or not.	Step 1: Click on login form. Step 2: Fill all fields of login form. Step 3: Press Submit button.	Enter the correct username and password of admin.	Form should be submitted successfully.	Form is submitted successfully.	Pass
TC_2	To check the functionality of the “change password button” in Admin Panel.	Step1: Login as an Admin. Step 2: Click on the change password button. Step3: Enter the new Password and confirm it. Step 4: Click on the Change password button	Enter the correct confirm password	Password should updated successfully.	password is updated successfully.	Pass

TC_3	To check the functionality of “Backup button” in Admin Panel.	<p>Step1: Login as an Admin</p> <p>Step 2: Click on backup button.</p> <p>Step 3: Click ok on popup form.</p>	Click on ok.	Backup should be created successfully.	Backup is created successfully.	Pass
TC_4	To check the functionality of “Print button” Admin Panel.	<p>Step 1: Login as an Admin.</p> <p>Step 2: Select Year, Branch and Term.</p> <p>Step 3: Click on Print button.</p>	Select the correct year, branch and term	Result PDF should be added successfully.	Result PDF should be added successfully.	Pass

TC_5	To check the functionality of the Declare Result Button in Admin Panel	<p>Step 1: Login as an Admin.</p> <p>Step 2: Click on Declare Result button.</p> <p>Step 3: Click on Backup button</p> <p>Step 4: Click on clear data</p> <p>Step 5: Choose Semester</p> <p>Step 6: Click on Declare result.</p>	Enter the Correct semester.	Result is generated Successfully.	Result is generated successfully.	Pass
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5.2.2 HOD Panel

Test Case Id	Test Case Objective	Steps	I/P Data	Expected Result	Actual Result	Status
TC_1	To check the functionality of HOD Login.	Step 1: Click on login. Step 2: Enter login details in HOD login form. Step 3: Press on login.	Enter correct username and password for HOD	HOD should be login successfully.	HOD is login successfully.	Pass
TC_2	To check the functionality of add invigilator in HOD Panel.	Step 1: Login as a HOD. Step 2: Click on Register invigilator Step 3: Enter the information about invigilator	Enter the correct data in the form.	Invigilator should be added successfully.	Invigilator should be added successfully.	Pass

		Step: 4 Click on Submit.				
TC_3	To check the Functionality of message button.	<p>Step 1: Login as a HOD</p> <p>Step 2: Click on message button.</p> <p>Step 3: Enter title, message and date.</p> <p>Step 4: Click on send button.</p>	Enter the correct title for message and choose the Correct receiver.	Message should be send successfully.	Message should be send successfully.	Pass
TC_4	To check the Functionality of Overall result analysis button	<p>Step 1: Login as a HOD.</p> <p>Step2 : Select year, branch and term button.</p> <p>Step 3: Click on overall</p>	Enter the correct Year, branch and Term	Table Should be Display successfully.	Table Should be display successfully.	Pass

		Analysis button				
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TC_5	To check the functionality of Register Student button.	Step 1: Login as a HOD. Step 2: Click on Register Student button.	-	All year student of particular department should be displays successfully	All year student of particular department displays successfully	Pass
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5.2.3 Invigilator Panel

Test Case Id	Test Case Objective	Steps	I/P data	Expected Result	Actual Result	Status
TC_1	To check the functionality of Invigilator login.	Step 1: Click on login button. Step 2: Fill the Invigilator login form. Step 3: Click on login.	Enter correct username and password.	Invigilator should be logged in.	Invigilator is logged in successfully.	Pass
TC_2	To check the functionality of get students button.	Step1: Login as a invigilator Step 2: Click on get students	-	Register students should be displayed successfully.	Register students should be displayed successfully.	Pass

TC_3	To check the Functionality of edit button.	<p>Step 1: Login as a Invigilator.</p> <p>Step 2: Click on edit button.</p> <p>Step 3: Enter PT, Oral, theory, Practical and Term-work Marks.</p> <p>Step 4: Press save button.</p>	Enter the Correct Pt theory, oral practical and term-work marks.	Marks should be Uploaded successfully.	Marks is uploaded successfully.	Pass
TC_4	To check the functionality of update profile option.	<p>Step 1: Login as a Invigilator.</p> <p>Step 2: Click the update upper right corner.</p> <p>Step 3: Enter details</p> <p>Step 4: Click on save.</p> <p>Step 5: Enter details and click on update button.</p>	Enter the correct email, address and mobile number.	Profile should be Updated successfully.	Profile is updated successfully.	Pass

Chapter 6

COSTING

6.1 Cost of Project

Sr. No.	Title	Cost
1.	Work hour	150
2.	Group members	3
3.	Charges per hour	Rs.500
4.	Total work charges	$150 \times 500 = \text{Rs.}75,000(\text{per person})$
5.	Total charge	$75,000 \times 3 = \text{Rs.}2,25,000$
6.	Internet hours	40
7.	Cost per hour	50
8.	Total internet charge	$40 \times 50 = \text{Rs.}2000$
9.	Printing and other costs	0
10.	Computer charges	500
11.	Total Cost	Rs.2,27,500

Chapter 7

OTHER ASPECTS

7.1 Advantages

1. Platform independent.
2. Saves time and efforts.
3. Easy to maintain and user-friendly.
4. Reduces paper work.
5. Reduces overload on staff.
6. Authenticated through username and password.
7. Secure.

7.2 Disadvantages

1. If in future the data set increases then this will affect the speed of the system.
2. Wrong operation cause data integrity.

7.3 Applications

1. It is useful for analyzing the result of students and generate the result in the form of PDF.

Chapter 8

FUTURE SCOPE

There are future enhancement that can be made in the system.

1. Attendance management System can be implemented in this module.
2. Student module can be add which help them to analyze their result or compare it with topper.
3. Website customization through GUI.
4. We can apply technologies like data mining, machine learning to manage/automate and sort data appropriately.

Chapter 9

CONCLUSION AND REFERENCES

9.1 Conclusion

From a proper analysis of positive points and constraints on the component, it can be safely concluded that the product is a highly efficient GUI based component. This application is working properly and meeting to all user requirements. The system can easily analyze the result which saves the time.

9.2 References

[1] Herbert Schildt, Java Complete Reference, 5th edition

[2] <http://www.youtube.com>

[3] <http://www.hibernate.org>

[4] <http://www.stackoverflow.com>

[5] <http://www.github.com>

[6] <http://www.oracle.com>