



Database Management System

Section : 1 Group : 1

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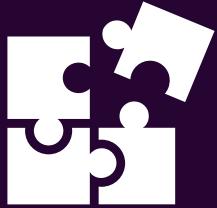
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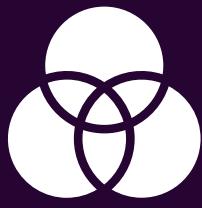
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As-Is System



Rich Picture(As-is)



Six Element Analysis

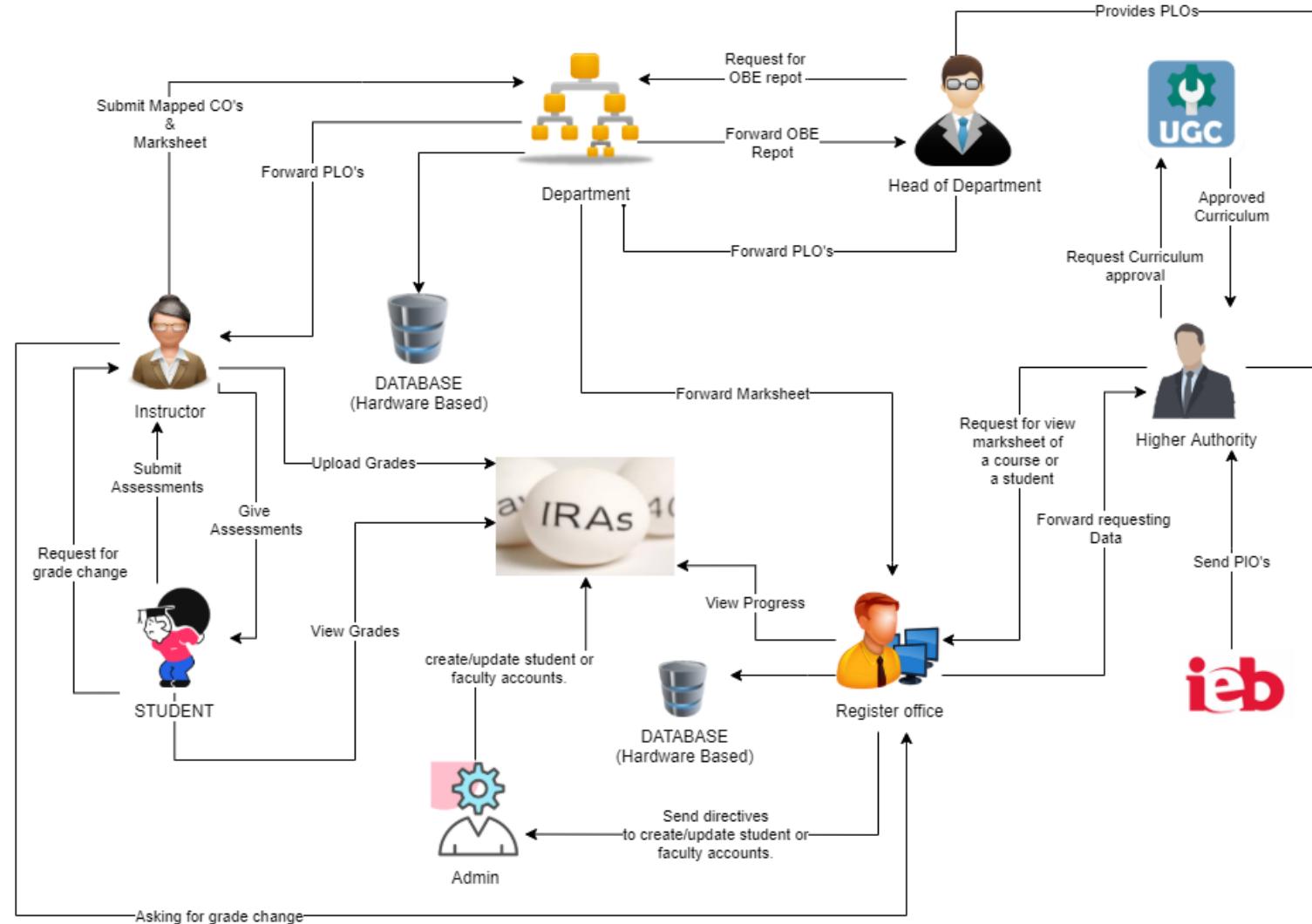


Business Process Diagram



Problem Analysis

Rich Picture (AS-IS)



Six Element Analysis (As-is)

Process	System Roles					
	Human	Non-Comp Hardware	Computing Hardware	Software	Database	Network & communication
Map Course Outcomes (COs) to Program Learning Outcomes (PLOs)	<p>IEB/UGC/ Ministry of Education: 1. Send Accreditation Manual with PLOs defined to Heads of Department/Dean of School.</p> <p>Head of Department / Dean of School: 1. Receive Accreditation Manual from IEB. 2. Send the Accreditation manual to Department Staff. 3. Direct Department Staff to tell Course Instructors and Coordinators to design Course Outline and Course Assessment Reports.</p>	<p>Pen and paper: 1. Is used for noting down intermediate Brainstorming ideas.</p> <p>Board and marker: 1. Is used for noting down intermediate Brainstorming ideas.</p>	<p>Computer: 1. Course Coordinators use computers to make softcopies of Course Outcomes (COs) of the specific courses they are experts in.</p> <p>Printer: 1. To print out hardcopies of Course Outcomes (COs).</p>	<p>MS Word: 1. Course Coordinators use MS Word to make a detailed course outline and Course Assessment Reports with Course Outcomes (COs) mapping to Program Learning Outcomes (PLOs).</p> <p>Excel Sheet: 1. Excel Sheet is used by Course Coordinators to map specific questions in the Midterm, Final exams and Project work to specific Course Outcomes (COs).</p>		Internet & Email: 1. Use the internet and emails to communicate with UGC/IEB or other Stakeholders to discuss important topics related to mapping Course Outcomes to Program Learning Outcomes. Others: 1. Use phones or physical means with stakeholders to discuss important topics related to mapping Course Outcomes to Program Learning Outcomes.

	<p>Department:</p> <p>1. Send Course Instructors the Accreditation Manual with Defined PLOs.</p> <p>Course Instructor:</p> <ol style="list-style-type: none">1. List course content.2. List CO's.3. Map Course Content to Course Outcomes (COs).4. Map COs to PLOs.5. Map COs to specific questions of Mid-term, Final Exams questions and Project Work.6. Starting to design course assessment report using course outline, Course Content and CO's.					
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Record Student Assessment Data	<p>Faculty/ Course Coordinator:</p> <ol style="list-style-type: none"> 1. Assign project work and Assignments. 2. Take quizzes and exams throughout the semester. 3. Record assessment data of students throughout the semester of each student for every assessment (quizzes, assignments, project, exams) on softcopies and hardcopies. 4. Record marks for each specific question in the midterms and final exams. 5. Calculate total marks of quizzes, assignments, and midterm and final exams and assign final grades to each student of specific courses. 6. Convert finals and midterms marks. 7. Bring all the marks of every student for a course into a Marksheets. 8. Grade the student. 9. Upload students' final grades on IRAS. 10. Send the Marksheets to the Department. 11. Send the Marksheets to the Registrar's office. 	<p>Pen & Paper:</p> <ol style="list-style-type: none"> 1. Use pen & paper to record assessment data and marks obtained on physical paper in tabular Format (hardcopies). 	<p>Computer:</p> <ol style="list-style-type: none"> 1. Creating softcopies of records of all assessment data for specific courses are done on Computers. 	<p>Excel Sheet:</p> <ol style="list-style-type: none"> 1. Record necessary assessment data and final grades on Excel Sheets. <p>IRAS:</p> <ol style="list-style-type: none"> 1. Upload students' final grades to IRAS for viewing by students or the Registrar's office. 	<p>Department Storage:</p> <ol style="list-style-type: none"> 1. Records of students' assessment data and final grades may be saved in the department office and registrar's office for future reference. <p>IRAS Database server:</p> <ol style="list-style-type: none"> 1. IRAS uses a database server to store and maintain student grades' information. 	<p>Internet:</p> <ol style="list-style-type: none"> 1. The Internet is used to communicate with IRAS to Store final grades of students.
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Produce OBE Marksheets & Course Assessment Report	<p>Faculty:</p> <ol style="list-style-type: none"> Calculate total marks received for each CO by calculating the marks received for questions and/or other Assessments mapped to CO's. Calculate total percentages received for each COs on the OBE Marksheets. Declare if a student has achieved a specific CO (if CO percentage is greater than or equal to 40). Declare if a student has received a PLO for a related CO. Make a table giving the verdict and analysis of how many students were able to receive a certain CO and PLO and other documents containing necessary information and data. Design Course Assessment Report using Course Outline, Course Content and Course Outcomes. Send the final version of the OBE Marksheets to the Dept. Office. 	<p>Pen and Paper</p> <ol style="list-style-type: none"> OBE marksheets Stored in hardcopy. Additional markings may be made to further separate Between students. 	<p>Computer/ Phone:</p> <ol style="list-style-type: none"> Uses computers to make softcopies of the OBE Marksheets and Course Assessment Reports. <p>Printer:</p> <ol style="list-style-type: none"> Print hardcopies of final versions of the OBE Marksheets and Course Assessment Reports. 	<p>Coded Excel sheet:</p> <ol style="list-style-type: none"> Faculty/Coordinator uses automated excel sheets to calculate the student's success/failure in Achieving PLOs. <p>MS Word:</p> <ol style="list-style-type: none"> Used to make Course Assessment Report softcopies. 	<p>Department Storage:</p> <ol style="list-style-type: none"> Records of students' assessment data and final grades will be saved in the department for future reference. <p>Registrar's Office Storage:</p> <ol style="list-style-type: none"> OBE Marksheets, Course Assessment Reports and other documents submitted by the department is stored for future reference. 	<p>Internet/Mail:</p> <ol style="list-style-type: none"> An Online platform (such as Google Sheets) may be used for processing the OBE assessment data spreadsheet.
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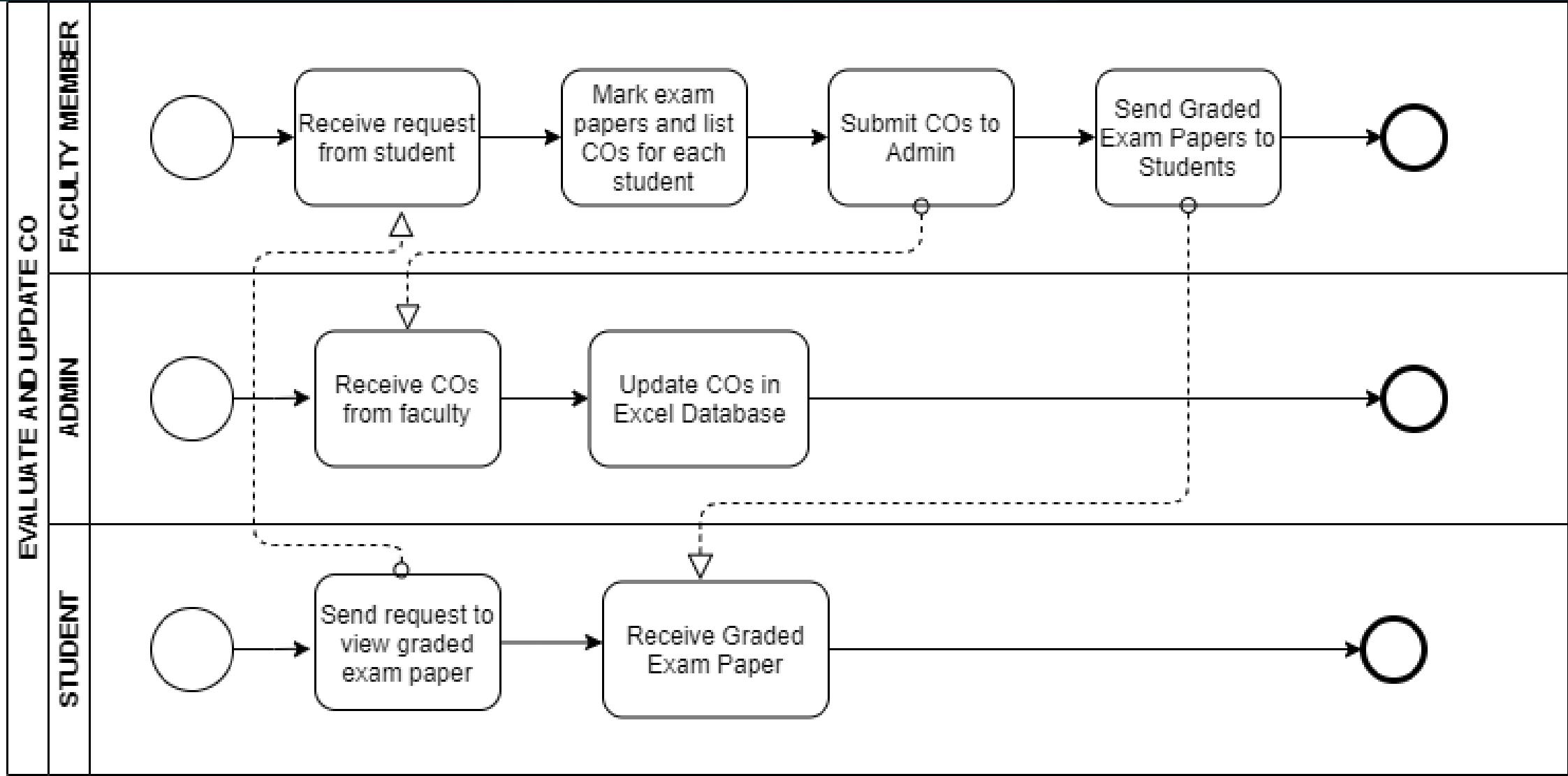
Department Office: 1. Send the OBE marksheet, Course Assessment Report and others to the Registrar's Office. 2. Store the OBE Marksheet and Course Assessment Report in the department. Registrar's Office: 1. Stores the OBE Marksheet and Course Assessment Reports and other documents and reports in the Registrar's Office.					
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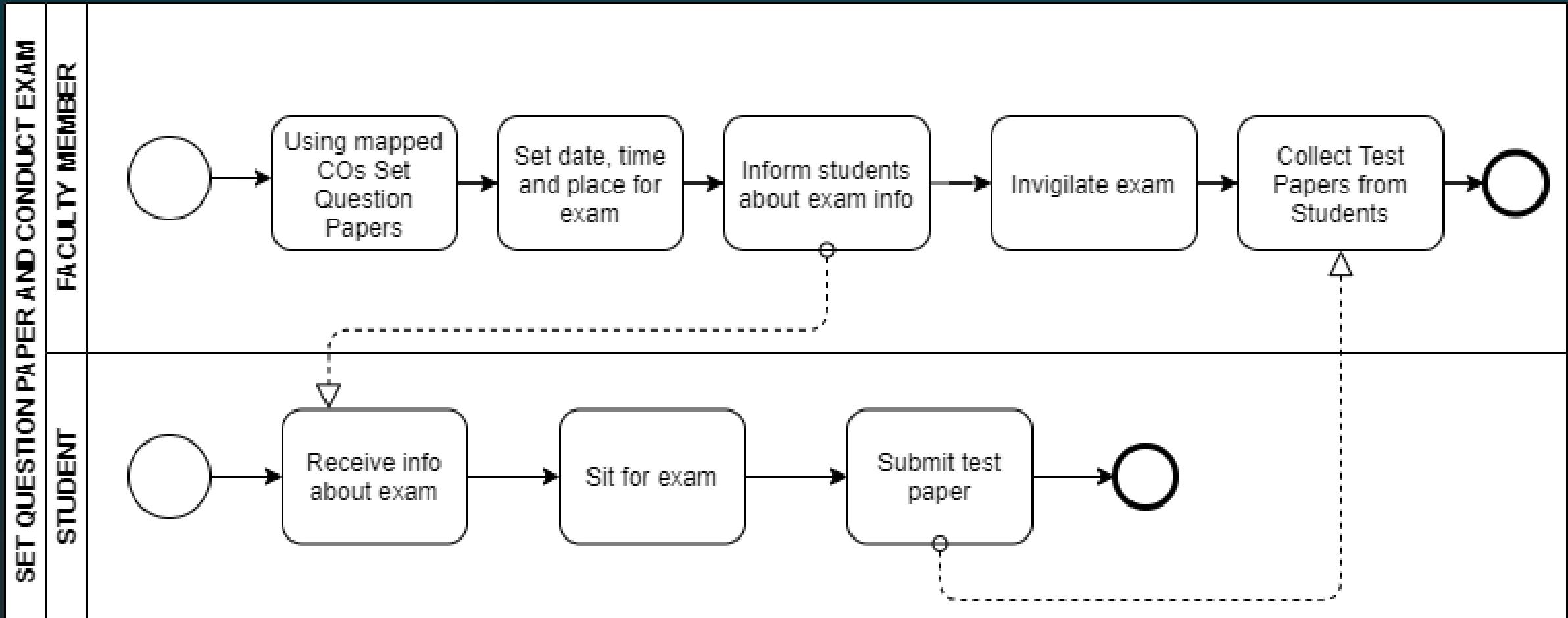
View Records	IEB/ UGC: 1. Inform the university head of a deadline within which OBE Marksheets, Course Assessment Reports and other documents are needed for quality inspection to make necessary improvements to degree programs. 2. Inform the university head if govt official will visit the campus. 3. Visit university and relevant depts to receive the necessary documents and reports. Head of Dept/Dean of School: 1. Request to view records of OBE Marksheets, Assessment Reports to analyze students' performance trends. 2. Direct Department Staff to gather necessary documents, OBE Marksheets, Assessment report for a given time-period specified by govt. officials.	Pen and Paper: 1. May be used for noting/markin g down key points of the report. 2. Hardcopies of reports may be used.	Computer: 1. Used to display OBE Marksheets and Course Assessment Report's softcopies. 2. Send OBE and Course Assessment Reports to other computers.		Department Records 1. Retrieval of OBE marksheets and Course Assessment reports when needed. 2. Stores records on stakeholders' interpretation of student performance trends.	The internet: 1. OBE marksheets and course assessment reports may be mailed online. 2. Online platforms such as Google Docs/Sheets display reports of softcopies.
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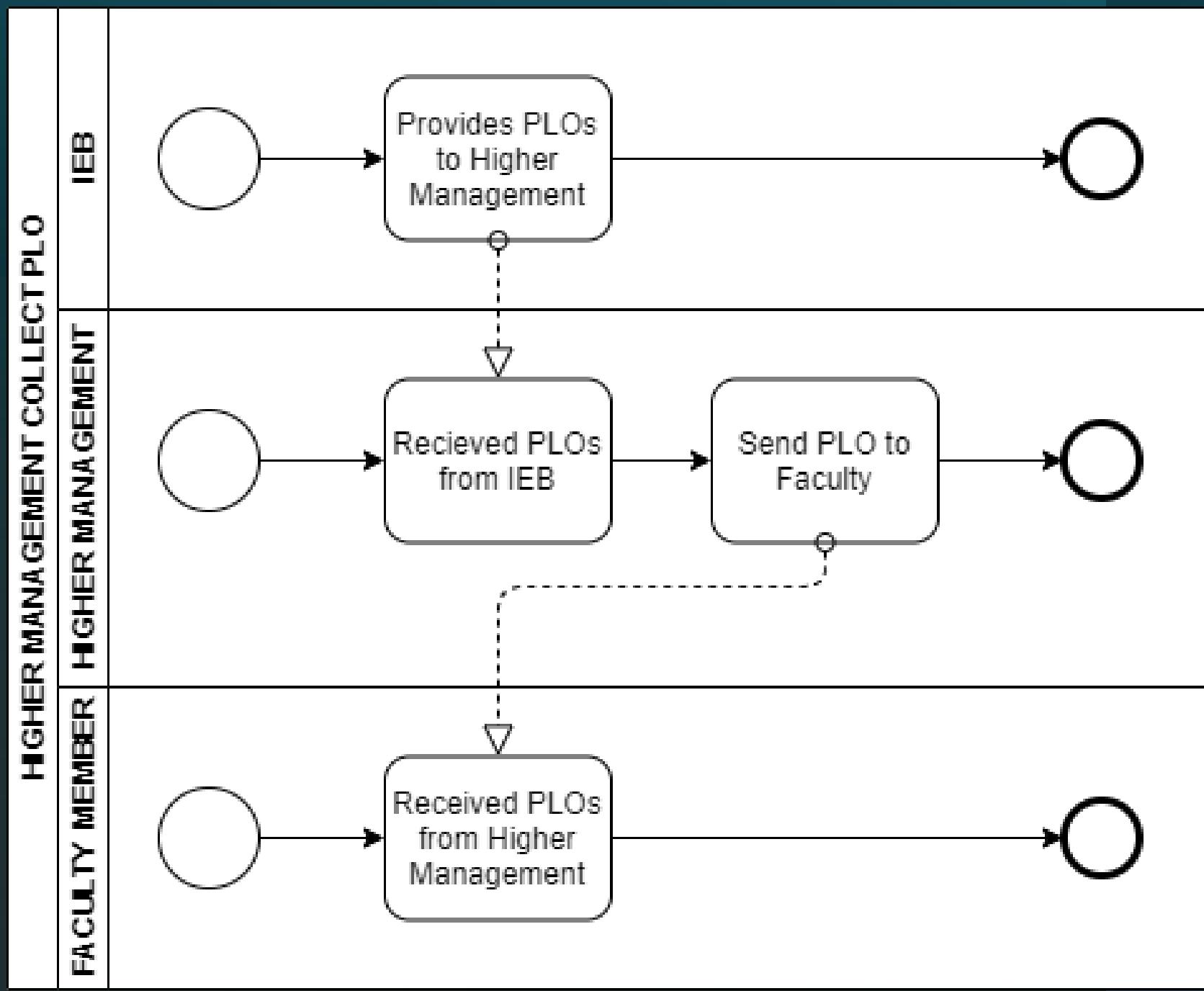
	<p>3. Receive the necessary documents gathered by the dept.</p> <p>4. Evaluate the need to change/ improve the department's educational resources based on students' performance trends.</p> <p>VC/Board of Trustees:</p> <p>1. Request to view records of OBE Marksheets, Assessment Reports to analyze students' performance trends.</p> <p>Departmental Staff:</p> <p>1. Gather necessary OBE Marksheets, Assessment Reports & other documents.</p> <p>2. Provide all the necessary documents to govt. officials.</p>				
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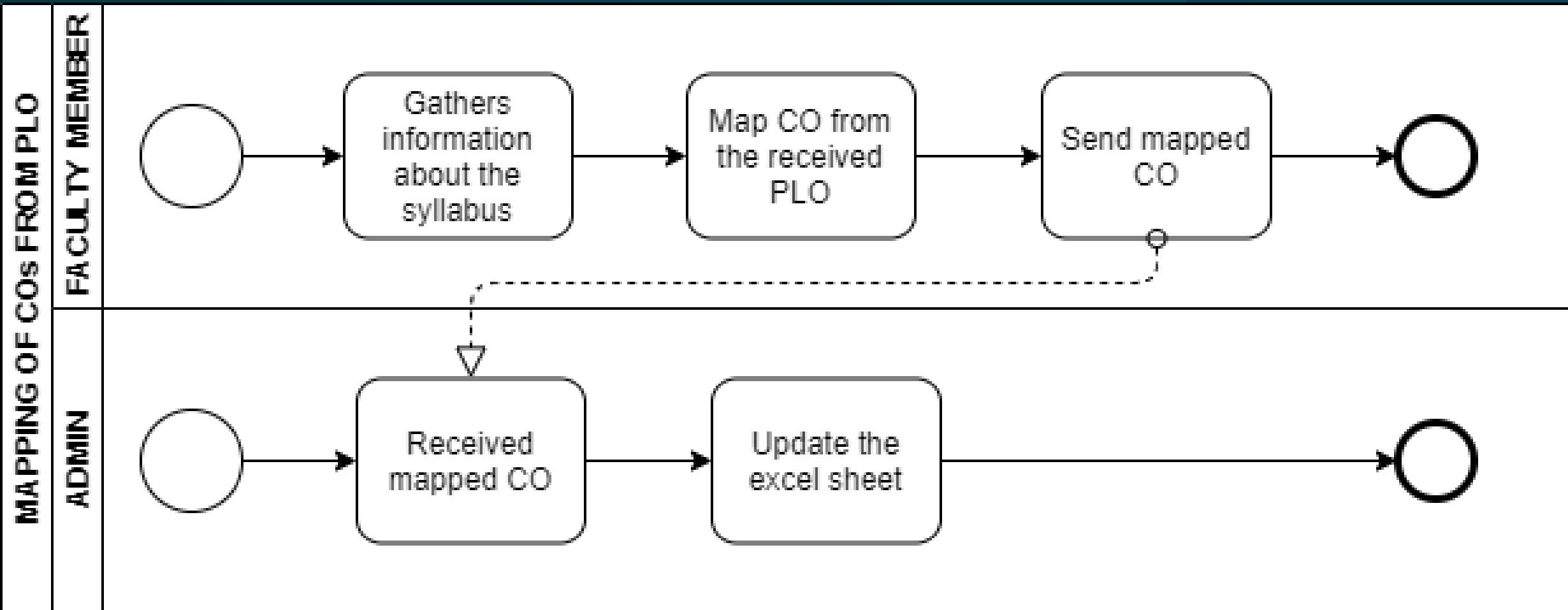
Request for review and change of grades.	<p>Students: 1. Request for grade change and review to faculty.</p> <p>Faculty/ Course Coordinator: 1. Check exam papers and other assessments upon request. 2. If change needs to be made, send a grade change request of a specific student to admin. If not, end the process.</p> <p>Admin: 1. Receive a request to change the grade of a specific student.</p>	<p>Pen and Paper: 1. May be used to note down key points or marks on the students' answer sheets.</p>	<p>Computer/ Phone: 1. Used for communicating with the faculty.</p>	<p>IRAS: 1. Used by the admin for changing the grade.</p>	<p>IRAS server: 1. Update student grade data.</p> <p>Department Storage: 1. Update student grade data.</p>	<p>Internet: 1. Email is primarily used for communication.</p> <p>Phone: 1. May be used for communication.</p>
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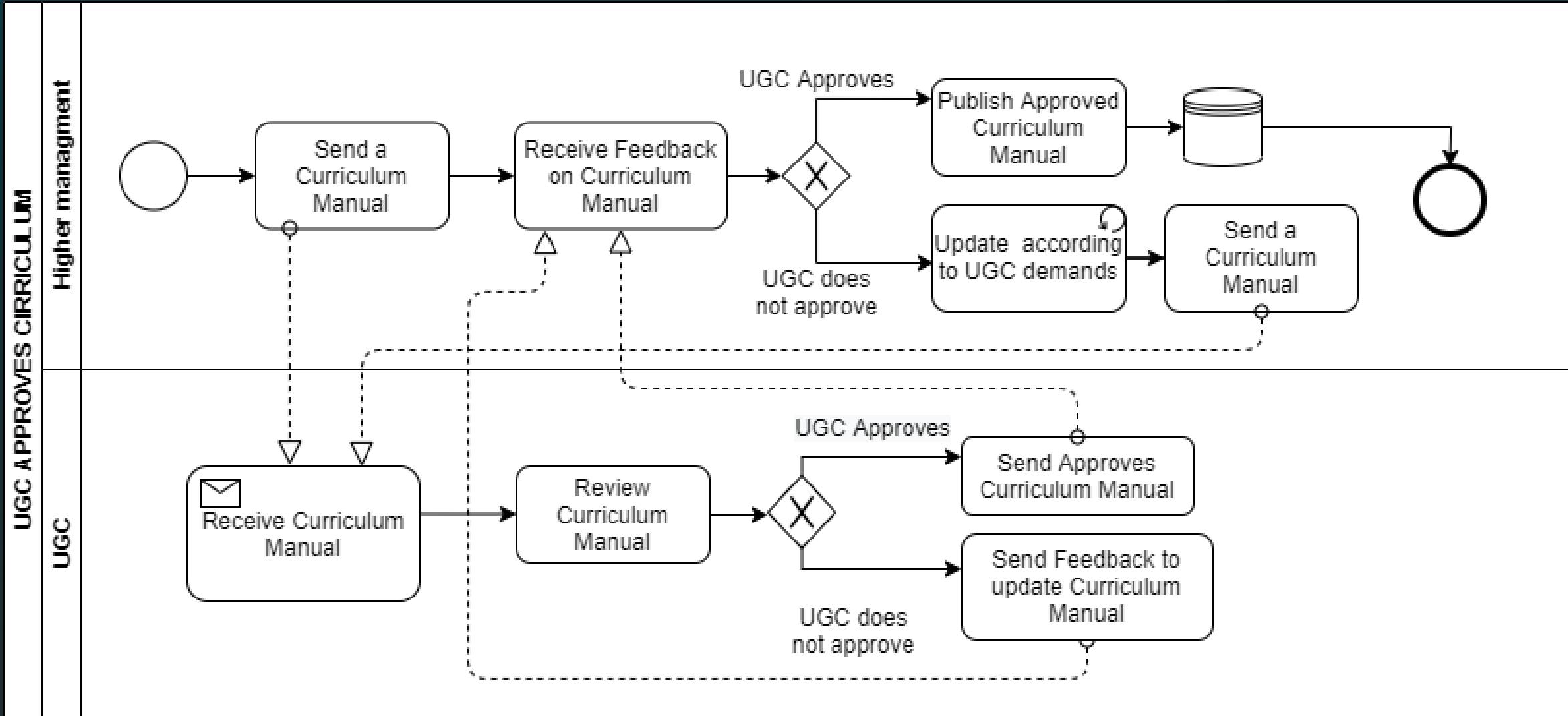
Process Diagram (As-Is)











Problem Analysis

Process Name	Stakeholders	Concerns(Problems)	Analysis (Reason of the Problems)	Proposed Solution
Student Enrollment	1. Student 2. Department Head 3. Registrar's office 4. Faculty 5. Dean 6. VC	School-wise, department-wise, and program-wise comparison of students have enrolled in each department with respect to a given period of time/semesters.	Student enrolled stats is recorded School, department and program-wise but was never compared with respect to time period/semester.	We want to keep the in the count of students enrolled along with a visual comparison of the student stats as per school-wise, department-wise, and program-wise and semester-wise.
Student performance based on CGPA	1. Student 2. Department Head 3. Registrar's office 4. Faculty 5. Dean 6. VC	School-wise, department-wise, and program-wise student performance trends based on CGPA with respect to a given period of time/semesters.	Students and other mentioned stakeholders have been able to only observe the CGPA status that gets updated every semester individually.	Our system should be allowing the users to statistically analyze the CGPA progress of the students not only on individually but also based on schools, department, and program with respect to a given period of time/semesters.
Course-wise student performance based on GPA.	1. Student 2. Department Head 3. Registrar's office 4. Faculty 5. Dean 6. VC	Course-wise (for a selection of courses) student performance trend based on GPA with respect to a given period of time/semesters.	The GPA of the students were used as verdicts only and never visualize into course-wise student's performance based of their GPA.	Through the software application the Stakeholders would be able to select the course and view performance trend depending on the GPA with respect to a given period of time/semesters.

Selective Number of Instructor-wise student performance based on the GPA of the students	1. Department Head 2. Registrar's office 3. Faculty 4. Dean 5. VC	Instructor-wise (for a selection of instructors) student performance trend based on the GPA of the students in that courses taught by each of the instructors so far with respect to a given period of time/semesters.	Higher Authorities have been unable to observe the statistics of their selective faculties performances all together based on the GPA of the students.	The SPM v2.0 system would allow to record the GPA of the students taught by the selective number of faculties. Storing and converting the data to appropriate graphical forums and measure performance of the instructors with respect to a given period of time/semesters. with respect to a given period of time/semesters.
VC-wise, dean-wise, or department head-wise student performance	1. Student 2. Department Head 3. Registrar's office 4. Faculty 5. Dean 6. VC	VC-wise, dean-wise, or head-wise student performance trend based on the GPA of the students under the school/program corresponding to the leadership team.	Higher authority (VC/Dean and Department Head) was unable to view VC, Dean or Department Head-wise student's performance under school/program.	The system would Will be able to visualize the performance of the students based on VC, Dean and Department-head.
Instructor-wise student performance based on the GPA of the students	1. Department Head 2. Registrar's office 3. Faculty 4. Dean 5. VC	Instructor-wise student performance trend for a chosen course with respect to a given period of time/semesters.	Higher authorities were not able to monitor Instructor performance for a selected number of faculty based on the GPA of the students they have taught.	The SPM v2.0 system would allow the stakeholders to record the GPA of the students taught by the selective faculty. Storing and converting the data to appropriate graphical forms and measure performance of the instructors with respect to a given period of time/semesters.

Total PLO percentage achieved and attempted by the student along with the departmental average	1. Student 2. Department Head 3. Registrar's office 4. Faculty 5. Dean 6. VC	<p>PLO total percentage score for each PLO calculated from the scores achieved in each CO associated with the corresponding PLO among all the courses the student has done so far, along with the departmental average performance for comparison. Also, for each PLO, what percentage of it was achieved from each of the courses associated with the corresponding PLO, and what percentage was achieved via each of all the COs associated with the corresponding PLO. All of this for a chosen school, program, or department.</p>	<p>The PLO and corresponding CO for all the courses the student has done so far is never compared cumulatively along the departmental average performance.</p>	<p>The system will provide the total of all PLO percentage corresponding to CO and calculate the score for all the courses a student has done for a chosen school, program, or department.</p>
PLO achievement	1. Student 2. Department Head 3. Registrar's office 4. Faculty 5. Dean 6. VC	<p>PLO achievement of a student for each of the courses taken so far.</p>	<p>Students are unable to monitor progress of their PLO achieved for respective courses as it only available to the faculties and has access to rest of the higher authorities.</p>	<p>Record and tabulate the number of PLO's achieved by the student for individual course taken and completed so far.</p>

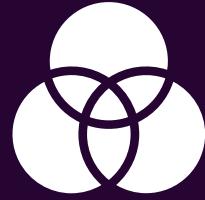
Comparison of PLO-achieved percentage versus PLO-attempted	<ol style="list-style-type: none"> 1. Student 2. Department Head 3. Registrar's office 4. Faculty 5. Dean 6. VC 	Comparison of PLO-achieved percentage versus PLO-attempted percentage.	Students are unable to compare progress of their PLO achieved vs PLO they should be aiming for with respect to courses they have done as it only available to the faculties and is analyzed manually and can be extremely time consuming.	The system would allow the students and rest of the stakeholders to monitor automatically using relational data model using proper SQL operations- their PLO achieved vs attempted comparisons individually.
Expected PLO-achievement versus actual score (For course's, student's, department's, program's, or school's)	<ol style="list-style-type: none"> 1. Student 2. Department Head 3. Registrar's office 4. Faculty 5. Dean 6. VC 	Comparison of a course's, student's, department's, program's, or school's expected PLO-achievement versus actual with respect to a given period of time/semesters.	The existing system allows to calculate manually and does not provide adequate information for comparisons of PLO. The verdict is filled up in an Excel sheet and is time consuming for the stakeholders to reach to respective faculties or department head for OBE mark sheet.	SPM software would allow the stakeholders to monitor automatically (login into the system) their PLO achieved vs attempted comparisons for course's, program's, departments, and school with respect to a given period of time/semesters.
CO-PLO achievement summary	<ol style="list-style-type: none"> 1. Student 2. Department Head 3. Registrar's office 4. Faculty 5. Dean 6. VC 	Summary of CO-PLO achievement stats for a chosen course, program, department, school.	The existing system by far was able the higher authorities only to track CO and PLO achieved for a course manually only.	SPM in a table will provide PLO-CO achievement stats to the stakeholders to choose for course wise, program, department, and school wise.



Proposed System



Rich Picture(As-is)



Six-Element Analysis

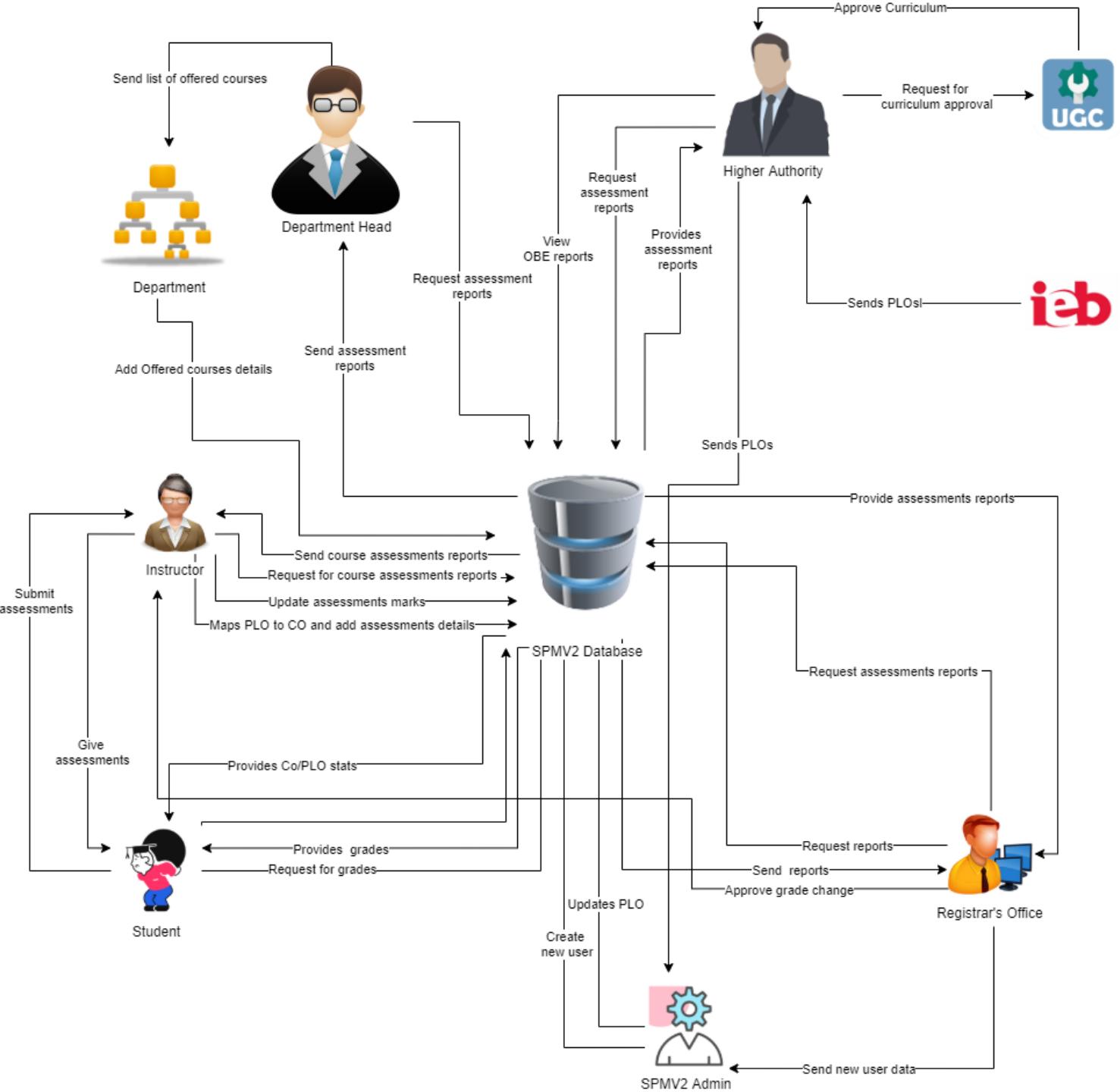


Business Process Diagram



Solution

Rich Picture (To-be)



Six Element Analysis (To-be)

Process	System Roles					
	Human	Non-Computing Hardware	Computing Hardware	Software	Database	Network and Communication
Student Enrollment	<p>Student a) Goes to the website b) Clicks on the form option c) Fills the form with required information</p> <p>Registrar Office a) Checks and verifies student enrollment information from the forms from the website or hardcopy forms b) Registrar Office's Admin logs into the system using admin ID and Password. c) Sends verified student information as an attachment to SPMS2.0 Admin/Team.</p>	<p>Paper and Stationary a) Used to collect information in forms from Students.</p>	<p>Computer/ Laptop a) SPMS 2.0 admin will use Computers to access and update data. b) Users will use the computer to view the data.</p>	<p>Operating Software Used by Registrar Office and SPMS2.0</p> <p>Student Uses to fill the form when filling the form from the website.</p>	<p>Register Office Database Used By the registrar office to collect the student information in a excel file to send it to SPMS2.0</p> <p>SPMS2.0 Information is stored in the Database for New user Account or any other updates.</p>	<p>Internet a) It is used to access and store data to SPMS2.0</p> <p>b) Used to collect the student form from the student to registrar office</p> <p>c) Used by the Registrar Office to send all the student information to SPMS2.0 Admin</p>

	<p>SPMS2.0 Admin:</p> <ul style="list-style-type: none">a)SPMS2.0 Admin logs into the system using SPMS2.0 user ID and password.b) Receives the student enrollment information in the attached files.c)Admin updates the student enrollment information in SPM2 Database.d)Notifies respected Stakeholders. <p>Department Head</p> <ul style="list-style-type: none">a)Logs into the system using their User ID and password.b)Inputs the desired time-period for number of students enrolled. <p>Higher Authority (VC/Dean)</p> <ul style="list-style-type: none">a)Logs into the system using their User ID and password.b)Inputs the desired time-period and compare School/Department for the number of students enrolled accordingly. <p>Faculty</p> <ul style="list-style-type: none">a)logs into the system using Faculty ID and passwordb)Inputs the ID of the section the faculty is taking to view the students enrolled.				
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Student Performance Based on CGPA	Student a)Logs into the System using Student ID and password. b) Inputs the desired time-period to view self CGPA progress Department Head a)Logs into the System using User ID and password. b) Inputs the desired time-period and School, Department or Program c)View statistically analyzed CGPA trend of students or any Individual Student Registrar's office a)Logs into the System using user ID and password. b) Inputs the desired time-period and School, Department or Program to view statistically analyzed CGPA trend of students.	Computer/ Laptop a)User will need a computer to access SPMS2.0 Printer a)Used to print out the report if need be.	Operating Software Used by the user to run SPMS2.0 SPMS2.0 a)The software will generate a performance trend.	Networking Devices (Router, Switch, Bridge, Hub): a)Used to access the Internet.	Internet a)It is used to login into and access the SPMS2.0
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Faculty

a)Logs into the System using Faculty ID and password.
b) Inputs the desired time-period and Program to view statistically analyzed CGPA trend of students or any Individual Student those who attended the faculty's section.

Higher Authority**(Dean/VC)**

a)Logs into the system using their User ID and password.
b)Inputs the desired time-period, School, and Department
c)View statistically analyzed CGPA trend of students.

Course-wise student performance based on GPA.	Student a)Logs into the System using Student ID and password. b) Inputs the course c)View self GPA for the course Department Head a)Logs into the System using User ID and password. b) Inputs the desired time-period course ID c)View statistically analyzed GPA trend of students Registrar's office a)Logs into the System using adminID and password. b) Inputs the desired time-period and course c) view statistically analyzed GPA trend of students.	Computer/ Laptop a)User will need a computer to access SPMS2.0 Printer a)Used to print out the report if need be. Networking Devices (Router, Switch, Bridge, Hub): a)Used to access the Internet.	SPMS2.0 a)The software will generate a performance trend based of GPA.	Internet a)It is used to login into and access the SPMS2.0
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Faculty

- a)Logs into the System using Faculty ID and password.
- b) Inputs the desired time-period Course ID under the faculty
- c)view statistically analyzed GPA trend of students who were in that faculty's section.

Higher Authority**(Dean/VC)**

- a)Logs into the system using their User ID and password.
- b)Inputs the desired time-period and Course ID.
- c)View statistically analyzed GPA trend of students for that specific course.|

Selective Number of Instructor-wise student performance based on the GPA	<p>Department Head</p> <ul style="list-style-type: none"> a)Logs into the System using User ID and password. b) Inputs the desired time-period course ID c)View statistically analyzed GPA trend of students for a selective number of Instructors. <p>Registrar's office</p> <ul style="list-style-type: none"> a)Logs into the System using AdminID and password. b) Inputs the desired time-period course ID c)View statistically analyzed GPA trend of students for a selective number of Instructors. <p>Faculty</p> <ul style="list-style-type: none"> a)Logs into the System using Faculty ID and password. b) Inputs the desired time-period & course ID c)View statistically analyzed GPA trend of students for a selective number of Instructors. 	<p>Computer/ Laptop</p> <ul style="list-style-type: none"> a)User will need a computer to access SPMS2.0 <p>Printer</p> <ul style="list-style-type: none"> a)Used to print out the report if need be. <p>Networking Devices (Router, Switch, Bridge, Hub):</p> <ul style="list-style-type: none"> a)Used to access the Internet. 	<p>SPMS2.0</p> <ul style="list-style-type: none"> a)The software will generate a performance trend for a selective instructor wise. 	<p>Internet</p> <ul style="list-style-type: none"> a)It is used to login into and access the SPMS2.0
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Higher Authority (Dean/VC) a)Logs into the System using User ID and password. b) Inputs the desired time-period course ID c)View statistically analyzed GPA trend of students for a selective number of Instructors.					
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VC-wise, dean-wise, or department head-wise student performance	<p>Department Head</p> <p>a)Logs into the System using User ID and password.</p> <p>b>Select Input from VC/Dean/Department Head</p> <p>c)View the student performance trend as per choice.</p> <p>Registrar's office</p> <p>a)Logs into the System using User ID and password.</p> <p>b>Select Input from VC/Dean/Department Head</p> <p>c)View the student performance trend as per choice.</p> <p>Dean/ VC</p> <p>a)Logs into the System using User ID and password.</p> <p>b>Select Input from VC/Dean/Department Head</p> <p>c)View the student performance trend as per choice.</p>	<p>Computer/ Laptop</p> <p>a>User will need a computer to access SPMS2.0</p> <p>Printer</p> <p>a)Used to print out the report if need be.</p> <p>Networking Devices (Router, Switch, Bridge, Hub):</p> <p>a)Used to access the Internet.</p>	<p>SPMS2.0</p> <p>a)The software will generate a performance trend.</p>	<p>Internet</p> <p>a)It is used to login into and access the SPMS2.0</p>
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Instructor-wise student performance based on the GPA of the students	<p>Department Head</p> <ul style="list-style-type: none"> a)Logs into the System using Department ID and password. b)Inputs a particular instructor Name/ID c)View the student performance trend of selected instructor. <p>Registrar's office</p> <ul style="list-style-type: none"> a)Logs into the System using User ID and password. b)Inputs a particular instructor c)View the student performance trend of selected instructor. <p>Faculty</p> <ul style="list-style-type: none"> a)Logs into the System using User ID and password. b)Input their Name/ID. c)View the student performance trend. 		<p>Computer/ Laptop</p> <ul style="list-style-type: none"> a>User will need a computer to access SPMS2.0 <p>Printer</p> <ul style="list-style-type: none"> a)Used to print out the report if need be. <p>Networking Devices (Router, Switch, Bridge, Hub):</p> <ul style="list-style-type: none"> a)Used to access the Internet. 	<p>SPMS2.0</p> <ul style="list-style-type: none"> a)The software will generate a performance trend. 	<p>Internet</p> <ul style="list-style-type: none"> a)It is used to login into and access the SPMS2.0
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	<p>Dean</p> <ul style="list-style-type: none">a)Logs into the System using User ID and password.b)Inputs a particular instructorc)View the student performance trend of selected instructor. <p>VC</p> <ul style="list-style-type: none">a)Logs into the System using User ID and password.b)Inputs a particular instructorc)View the student performance trend of selected instructor.			
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Total PLO percentage achieved and attempted by the student along with the departmental average.	<p>Student</p> <ul style="list-style-type: none"> a)Logs into the system using Student ID and Password b)Inputs the time period c)Views their comparison of attempted vs achieved PLO percentage along with the departmental average. <p>Department Head</p> <ul style="list-style-type: none"> a)Logs into the system using User ID and Password b)Inputs the time period c)Views the comparison of students attempted PLO vs achieved PLO percentage along with the departmental average. <p>Registrar's office</p> <ul style="list-style-type: none"> a)Logs into the system using User ID and Password b)Inputs the time period c)Views the comparison of students attempted PLO vs achieved PLO percentage along with the departmental average. 	<p>Computer/ Laptop</p> <ul style="list-style-type: none"> a>User will need a computer to access SPMS2.0 <p>Printer</p> <ul style="list-style-type: none"> a)Used to print out the report if need be. <p>Networking Devices (Router, Switch, Bridge, Hub):</p> <ul style="list-style-type: none"> a)Used to access the Internet. 	<p>SPMS2.0</p> <ul style="list-style-type: none"> a)The software will generate a comparison of attempted vs achieved PLO as well as the departmental average. <p>Operating system</p> <ul style="list-style-type: none"> Used by the SPMS2.0 	<p>Internet</p> <ul style="list-style-type: none"> a)It is used to login into and access the SPMS2.0
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<p>Faculty</p> <p>a)Logs into the system using User ID and Password</p> <p>b)Inputs the time period</p> <p>c)Views the comparison of students attempted PLO vs achieved PLO percentage along with the departmental average.</p> <p>Dean</p> <p>a)Logs into the system using User ID and Password</p> <p>b)Inputs the time period</p> <p>c)Views the comparison of students attempted PLO vs achieved PLO percentage along with the departmental average.</p> <p>VC</p> <p>a)Logs into the system using User ID and Password</p> <p>b)Inputs the time period</p> <p>c)Views the comparison of students attempted PLO vs achieved PLO percentage along with the departmental average.</p>				
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PLO achievement	Student a)Logs into the System using student ID and password. b) Selects PLO achievement c) view PLO achievement Department Head a)Logs into the System using user ID and password. b) Selects PLO achievement c) view PLO achievement Registrar's office a)Logs into the System using user ID and password. b) Selects PLO achievement. c) view PLO achievement. Faculty a)Logs into the System using faculty ID and password. b) Selects PLO achievement c) view PLO chievement	Computer/ Laptop a)User will need a computer to access SPMS2.0 Printer a)Used to print out the report if need be.	SPMS2.0 a)The software will generate PLO achievement.	Internet a)It is used to login into and access the SPMS2.0
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Dean a)Logs into the System using user ID and password. b) Selects PLO achievement c) view PLO achievement VC a)Logs into the System using user ID and password. b) Selects PLO achievement c) view PLO achievement				
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Expected PLO-achievement versus actual score (For course's, student's, department's, program's, or school's)	Student a)Logs into the System using student ID and password. b) Selects PLO achievement comparison c) view PLO achievement comparison	Computer/ Laptop a)User will need a computer to access SPMS2.0	SPMS2.0 a)The software will generate the expected vs achieved PLO.	Internet a)It is used to login into and access the SPMS2.0
	Department Head a)Logs into the System using user ID and password. b) Selects PLO achievement comparison c) view PLO achievement comparison	Printer a)Used to print out the report if need be.	Networking Devices (Router, Switch, Bridge, Hub): a)Used to access the Internet.	
	Registrar's office a)Logs into the System using user ID and password. b) Selects PLO achievement comparison c) view PLO achievement comparison			

Faculty
a)Logs into the System using faculty ID and password.
b) Selects PLO achievement comparison
c) view PLO achievement comparison

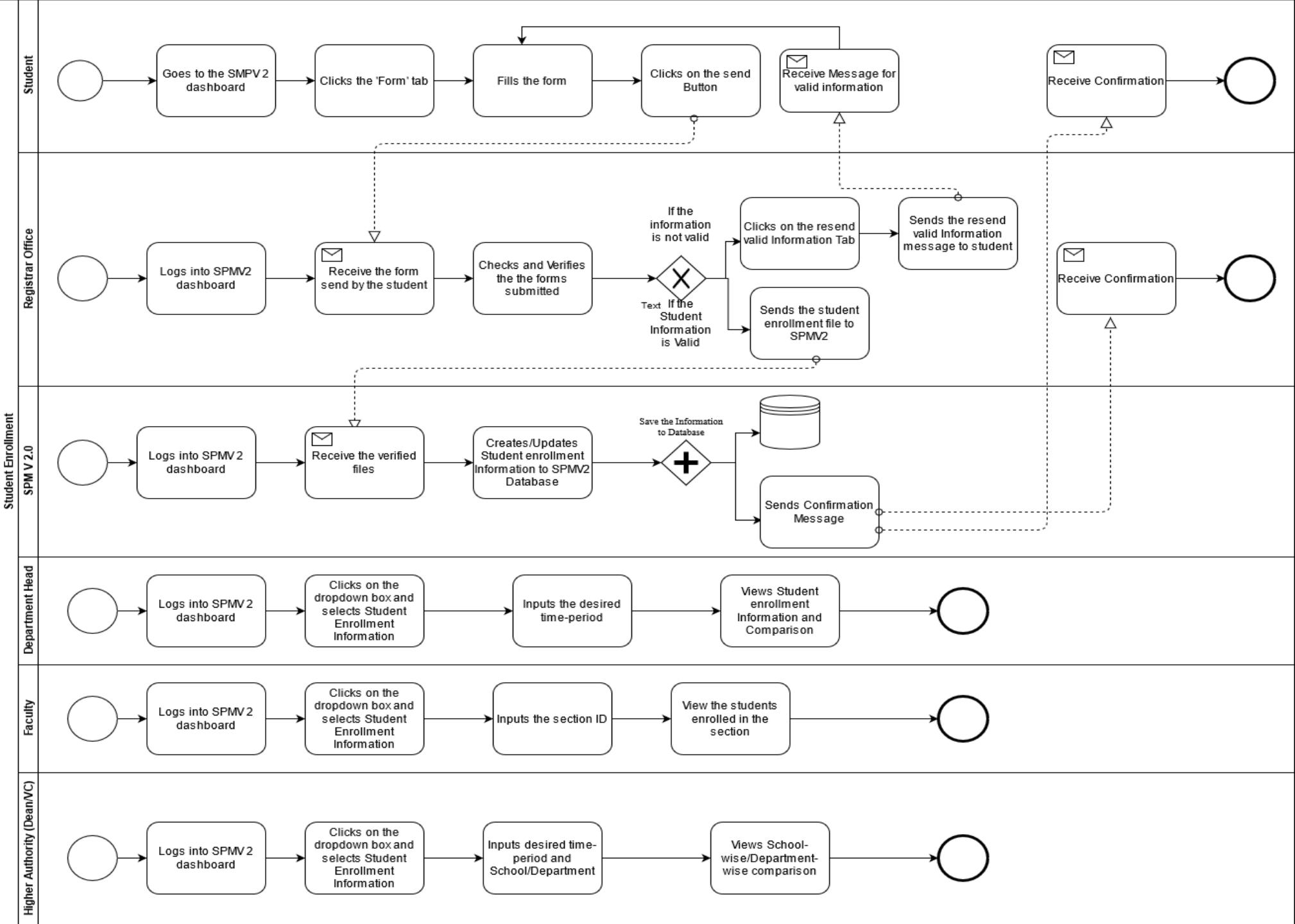
Dean
a)Logs into the System using user ID and password.
b) Selects PLO achievement comparison
c) view PLO achievement comparison

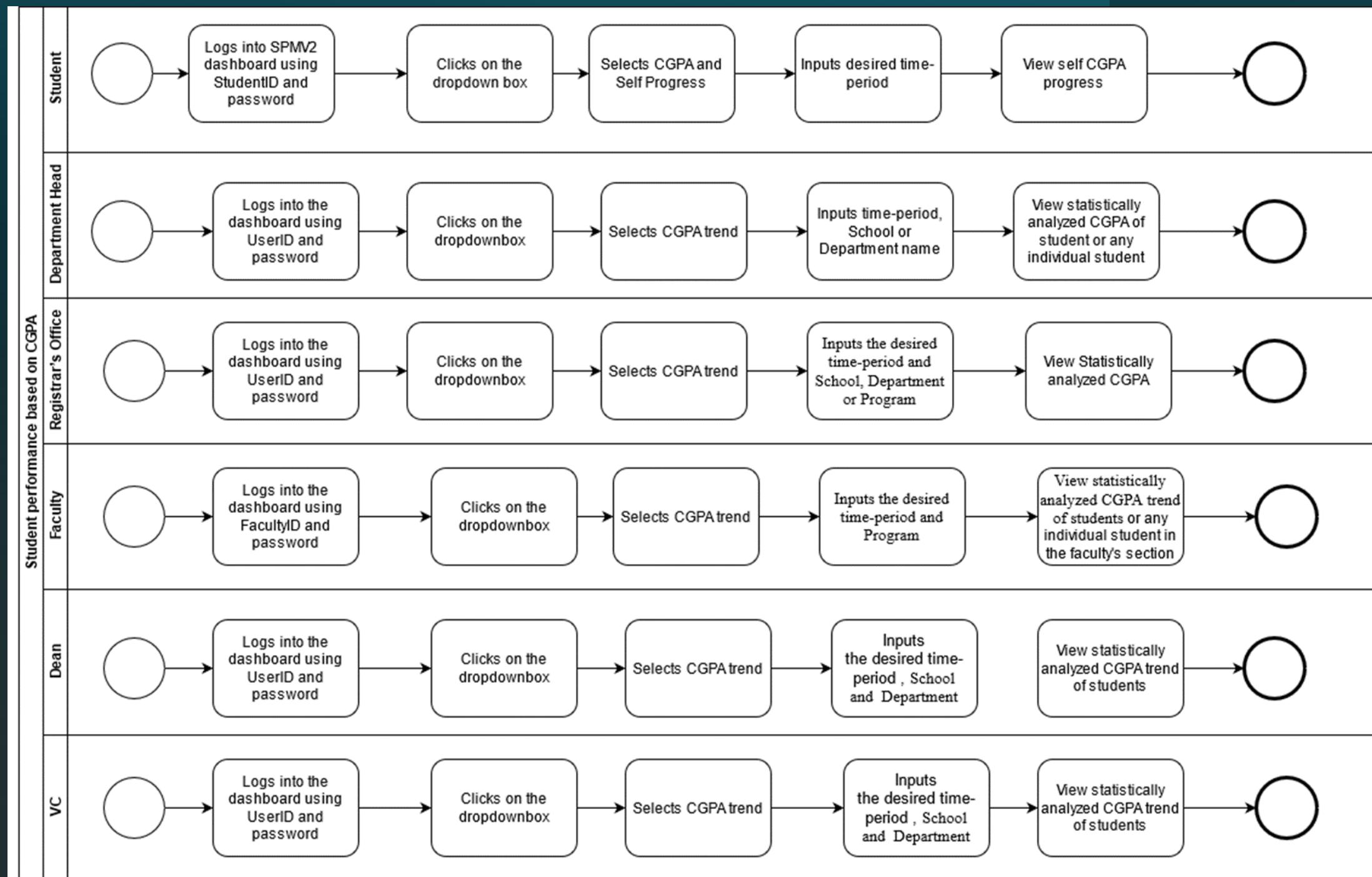
VC
a)Logs into the System using user ID and password.
b) Selects PLO achievement comparison
c) view PLO achievement comparison

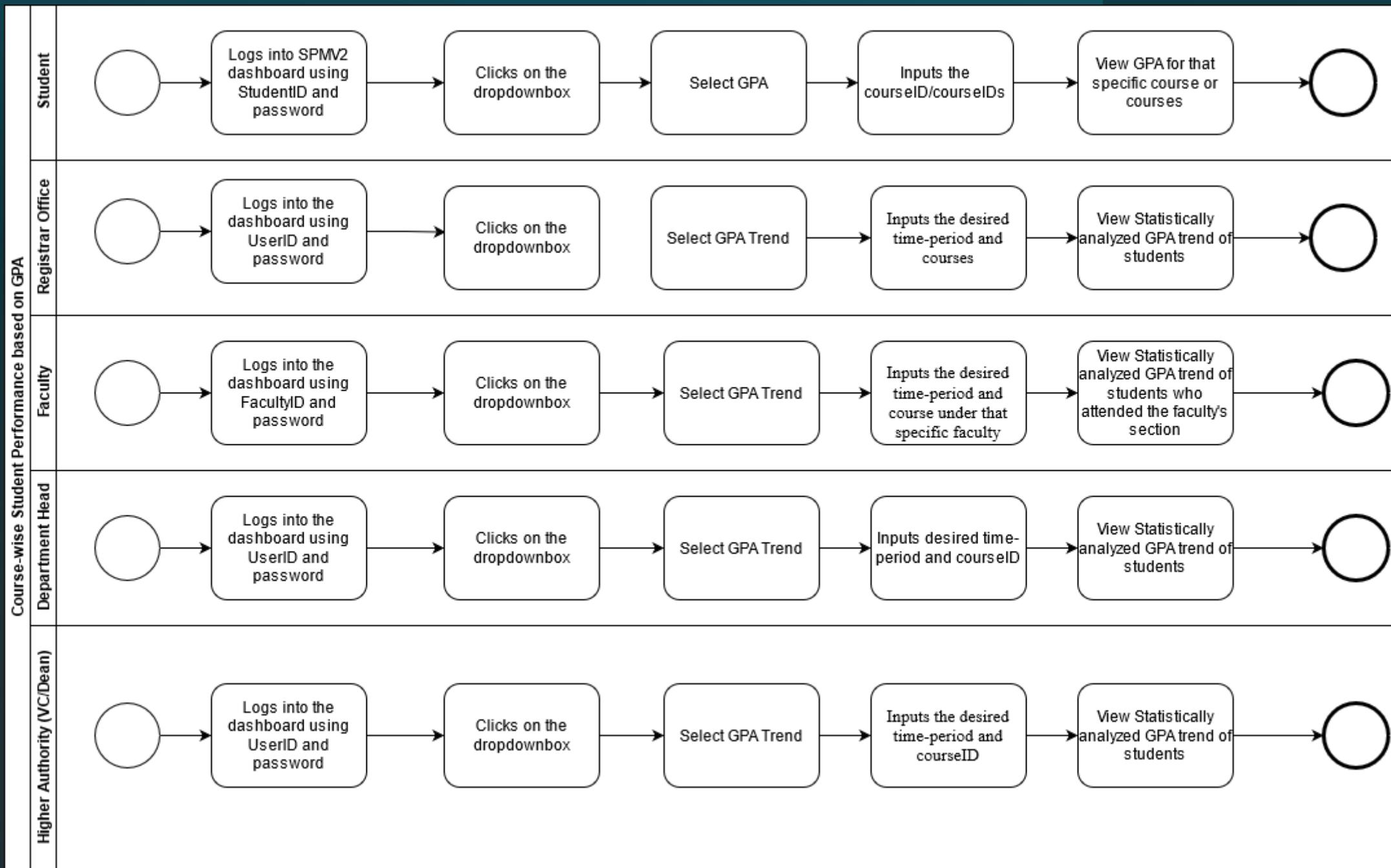
CO-PLO achievement summary	<p>Student</p> <p>a)Logs into the System using student ID and password.</p> <p>b) Selects CO-PLO achievement summary</p> <p>c) view CO-PLO achievement summary</p> <p>Department Head</p> <p>a)Logs into the System using user ID and password.</p> <p>b) Selects CO-PLO achievement summary</p> <p>c) view CO-PLO achievement summary.</p> <p>Registrar's office</p> <p>a)Logs into the System using user ID and password.</p> <p>b) Selects CO-PLO achievement summary</p> <p>c) view CO-PLO achievement summary</p>	<p>Computer/ Laptop</p> <p>a)User will need a computer to access SPMS2.0</p> <p>Printer</p> <p>a)Used to print out the report if need be.</p> <p>Networking Devices (Router, Switch, Bridge, Hub):</p> <p>a)Used to access the Internet.</p>	<p>SPMS2.0</p> <p>a)The software will generate the summary of CO-PLO achievement</p>	<p>Internet</p> <p>a)It is used to login into and access the SPMS2.0</p>
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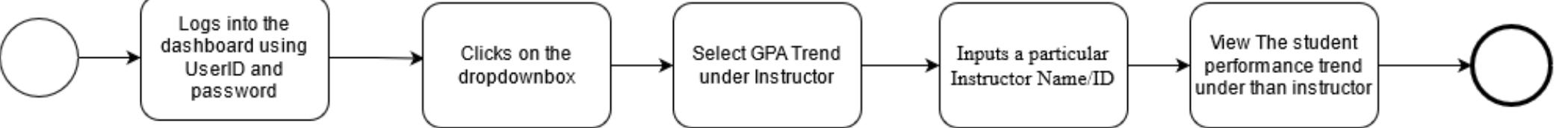
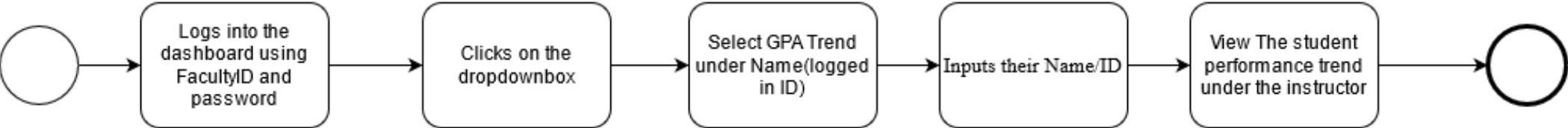
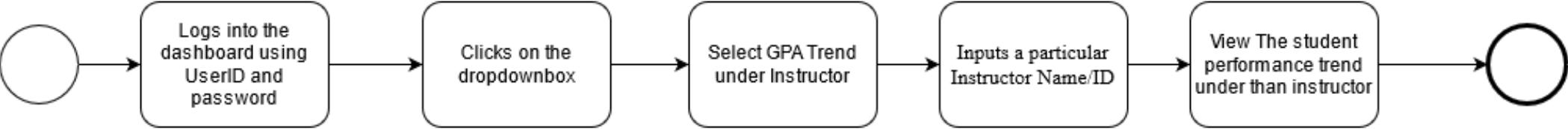
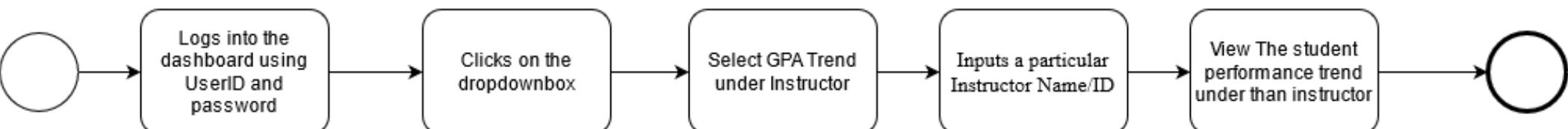
	<p>Faculty</p> <ul style="list-style-type: none">a)Logs into the System using faculty ID and password.b) Selects CO-PLO achievement summaryc) view CO-PLO achievement summary <p>Dean</p> <ul style="list-style-type: none">a)Logs into the System using user ID and password.b) Selects CO-PLO achievement summaryc) view CO-PLO achievement summary <p>VC</p> <ul style="list-style-type: none">a)Logs into the System using user ID and password.b) Selects CO-PLO achievement summary.c) view CO-PLO achievement summary.				
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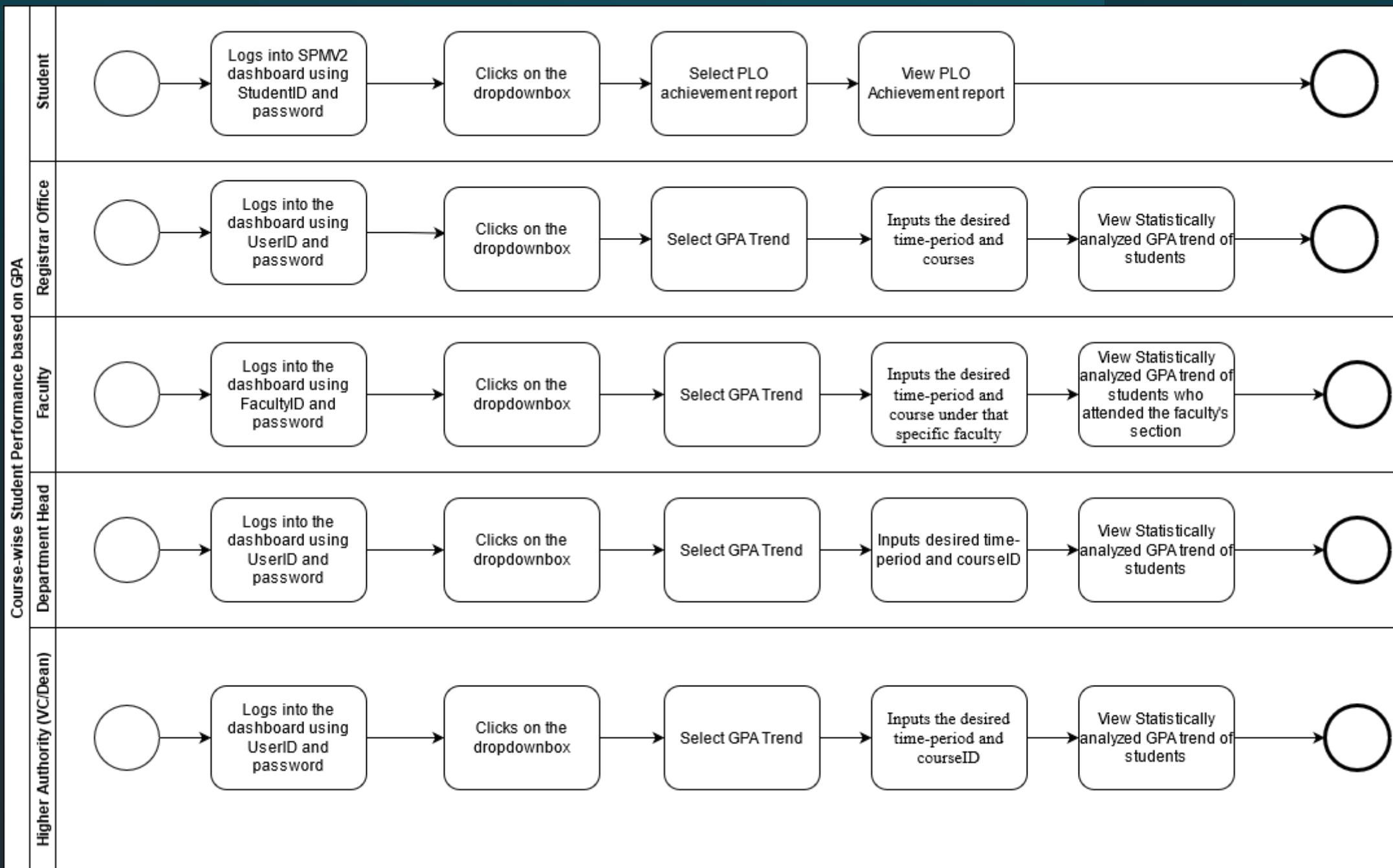
Process Diagram (To-Be)

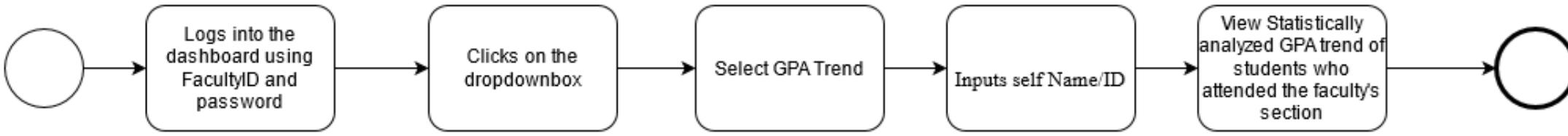
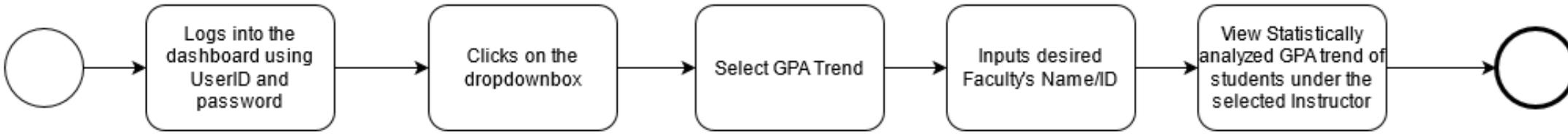
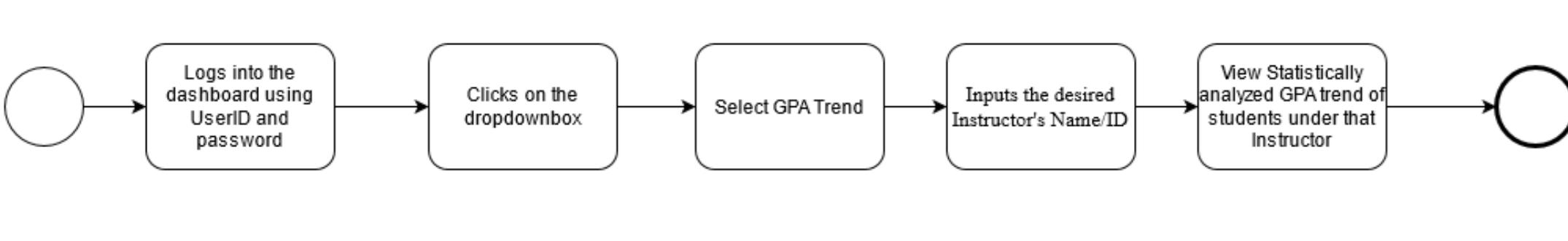


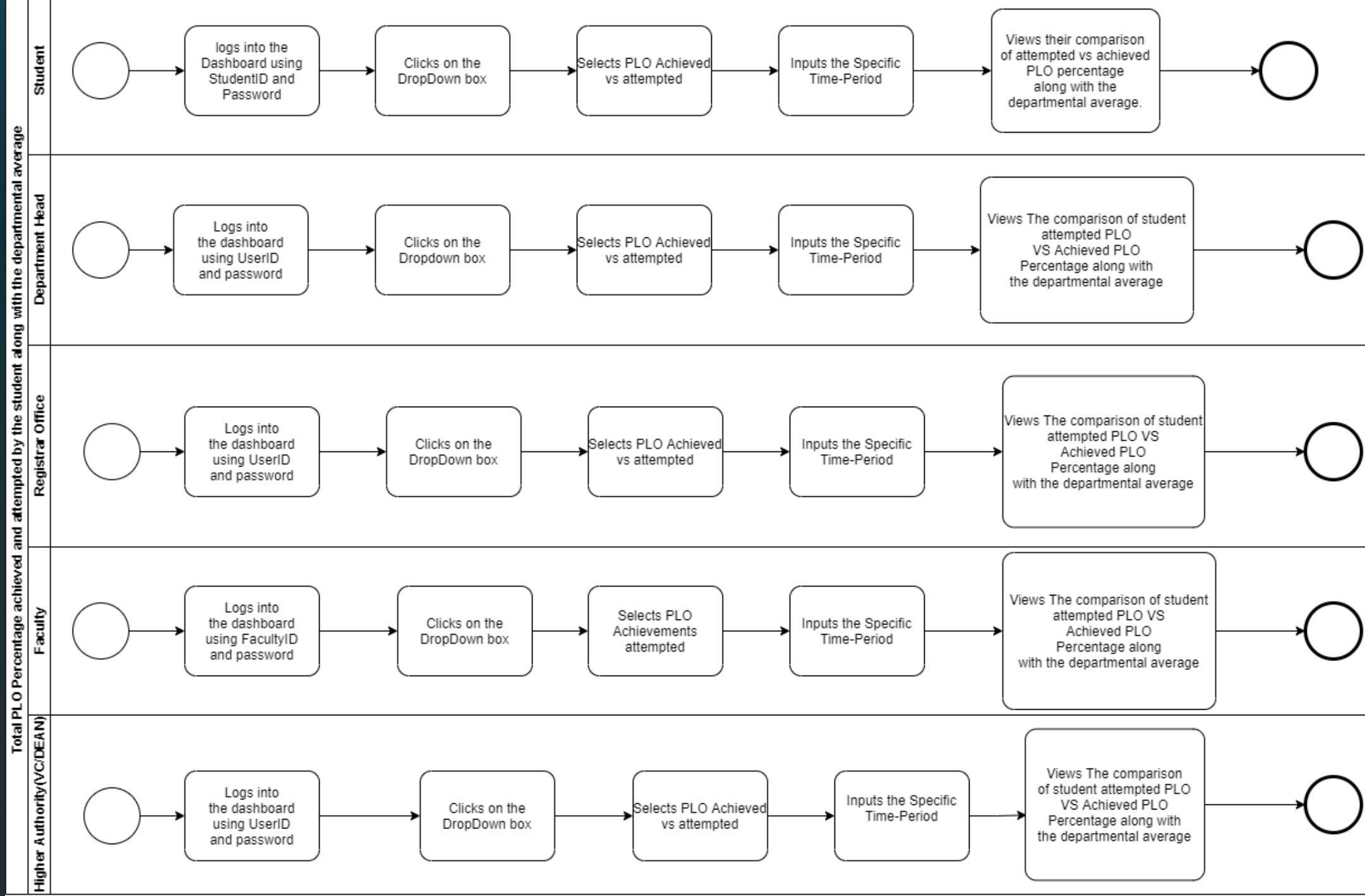


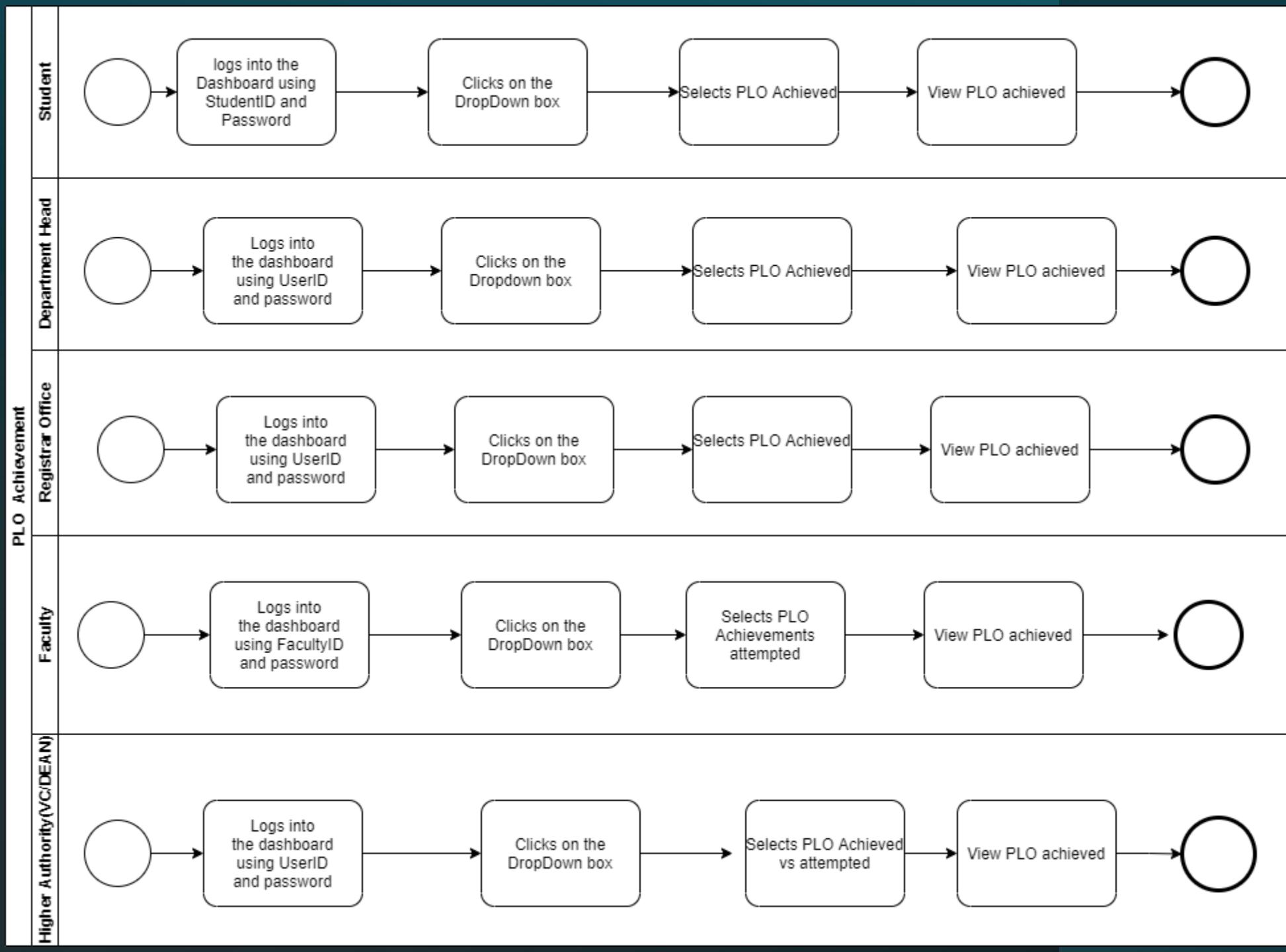


Selective Number of Instructor-wise performance based on the GPA	Registrar Office	 <pre> graph LR Start(()) --> LogIn[Logs into the dashboard using UserID and password] LogIn --> Click[Clicks on the dropdownbox] Click --> Select[Select GPA Trend under Instructor] Select --> Input[Inputs a particular Instructor Name/ID] Input --> View[View The student performance trend under than instructor] View --> End(()) </pre>
Faculty	Faculty	 <pre> graph LR Start(()) --> LogIn[Logs into the dashboard using FacultyID and password] LogIn --> Click[Clicks on the dropdownbox] Click --> Select[Select GPA Trend under Name(logged in ID)] Select --> Input[Inputs their Name/ID] Input --> View[View The student performance trend under the instructor] View --> End(()) </pre>
Department Head	Department Head	 <pre> graph LR Start(()) --> LogIn[Logs into the dashboard using UserID and password] LogIn --> Click[Clicks on the dropdownbox] Click --> Select[Select GPA Trend under Instructor] Select --> Input[Inputs a particular Instructor Name/ID] Input --> View[View The student performance trend under than instructor] View --> End(()) </pre>
Higher Authority (VC/Dean)		 <pre> graph LR Start(()) --> LogIn[Logs into the dashboard using UserID and password] LogIn --> Click[Clicks on the dropdownbox] Click --> Select[Select GPA Trend under Instructor] Select --> Input[Inputs a particular Instructor Name/ID] Input --> View[View The student performance trend under than instructor] View --> End(()) </pre>

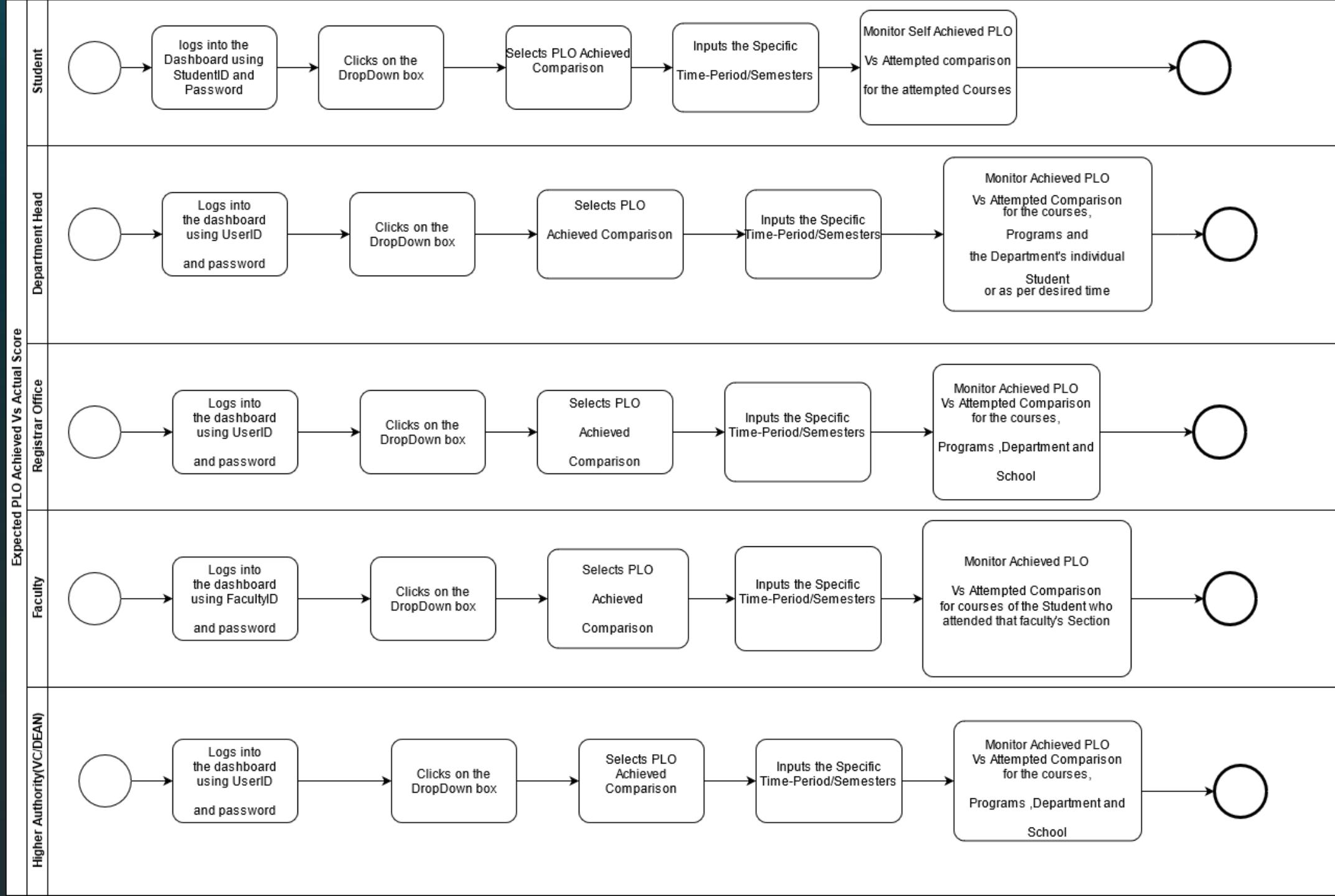


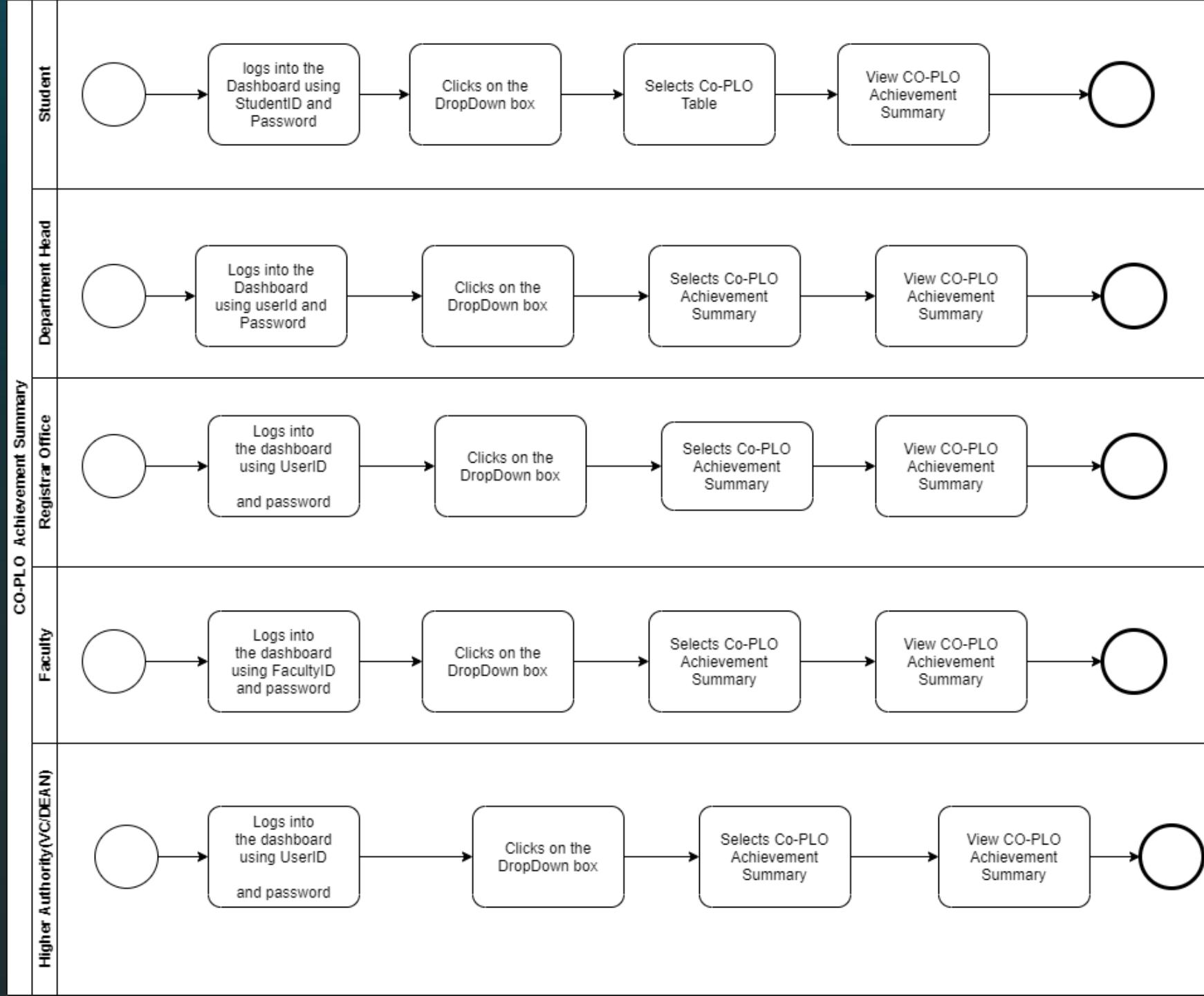
Instructor-wise Student Performance based on the GPA of the Students	Registrar Office	 <pre> graph LR Start(()) --> LogIn[Logs into the dashboard using UserID and password] LogIn --> Click[Clicks on the dropdownbox] Click --> SelectTrend[Select GPA Trend] SelectTrend --> InputTime[Inputs the desired time-period and courses] InputTime --> ViewTrend[View the student performance trend of selected instructor] ViewTrend --> End(()) </pre>
	Faculty	 <pre> graph LR Start(()) --> LogIn[Logs into the dashboard using FacultyID and password] LogIn --> Click[Clicks on the dropdownbox] Click --> SelectTrend[Select GPA Trend] SelectTrend --> InputName[Inputs self Name/ID] InputName --> ViewTrend[View Statistically analyzed GPA trend of students who attended the faculty's section] ViewTrend --> End(()) </pre>
	Department Head	 <pre> graph LR Start(()) --> LogIn[Logs into the dashboard using UserID and password] LogIn --> Click[Clicks on the dropdownbox] Click --> SelectTrend[Select GPA Trend] SelectTrend --> InputFaculty[Inputs desired Faculty's Name/ID] InputFaculty --> ViewTrend[View Statistically analyzed GPA trend of students under the selected Instructor] ViewTrend --> End(()) </pre>
	Higher Authority (VC/Dean)	 <pre> graph LR Start(()) --> LogIn[Logs into the dashboard using UserID and password] LogIn --> Click[Clicks on the dropdownbox] Click --> SelectTrend[Select GPA Trend] SelectTrend --> InputInstructor[Inputs the desired Instructor's Name/ID] InputInstructor --> ViewTrend[View Statistically analyzed GPA trend of students under that Instructor] ViewTrend --> End(()) </pre>



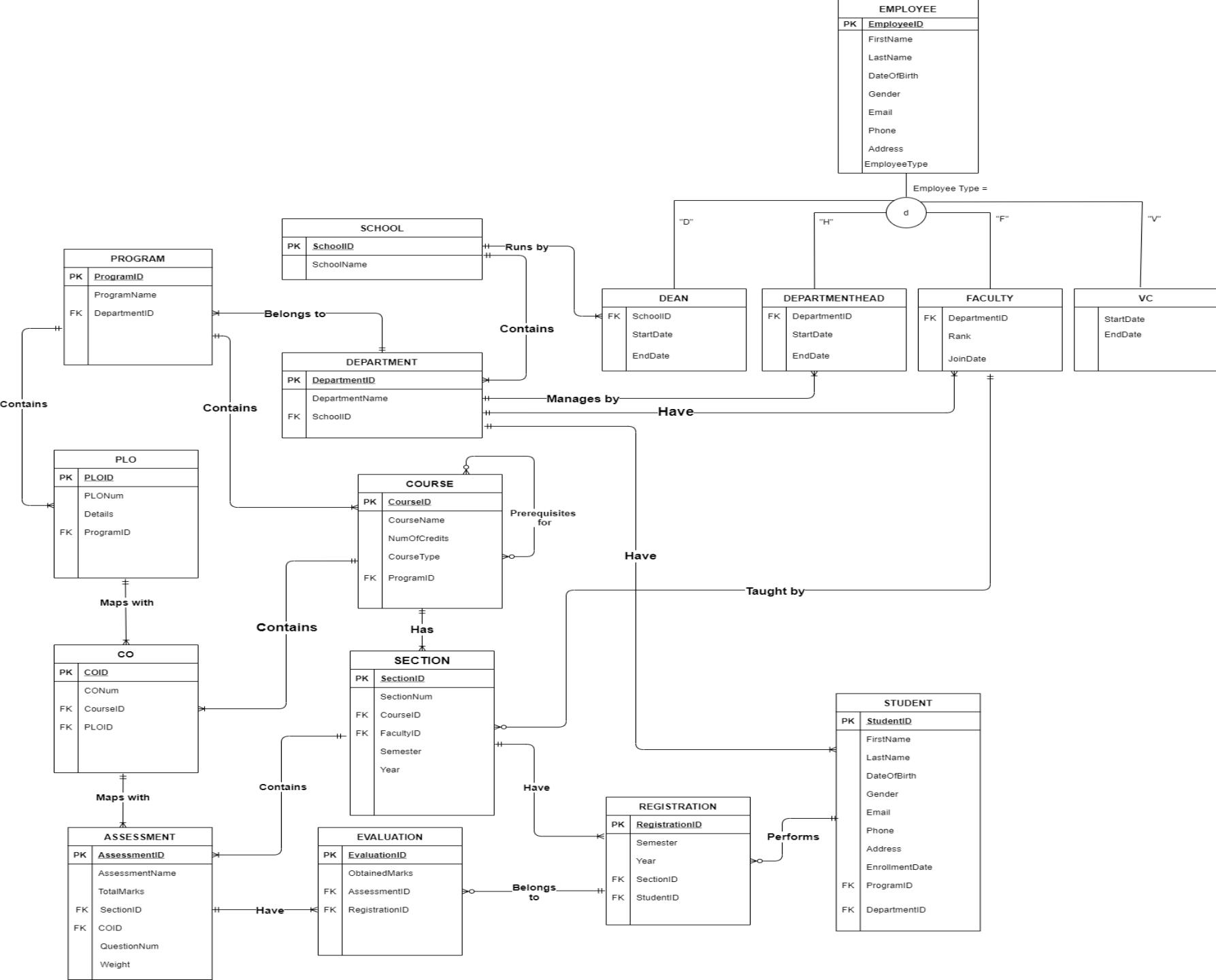


	 → [Logs into SPMV2 dashboard using StudentID and password] → [Clicks on the dropdownbox] → [Select PLO Achieved Vs Attempted] → [Use SQL Operation] → [Monitor Self Relational Data Model of PLO Attempted and Achieved] → 
Student	 → [Logs into the dashboard using UserID and password] → [Clicks on the dropdownbox] → [Select PLO Achieved Vs Attempted] → [Use SQL Operation] → [Monitor relational Data Model of PLO comparison as desired] → 
Registrar Office	 → [Logs into the dashboard using FacultyID and password] → [Clicks on the dropdownbox] → [Select PLO Achieved Vs Attempted] → [Use SQL Operation] → [Monitor Relational Data Model of the PLO achieved and Attempted by the individual student or comparison in that faculty's class] → 
Faculty	 → [Logs into the dashboard using UserID and password] → [Clicks on the dropdownbox] → [Select PLO Achieved Vs Attempted] → [Use SQL Operation] → [Monitor Relational Data Model of the PLO achieved and Attempted by the individual student or comparison as desired] → 
Comparison of PLO Achieved Vs PLO Attempted	 → [Logs into the dashboard using UserID and password] → [Clicks on the dropdownbox] → [Select PLO Achieved Vs Attempted] → [Use SQL Operation] → [Monitor Relational Data Model of the PLO achieved and Attempted by the individual student or comparison as desired] → 
Department Head	 → [Logs into the dashboard using UserID and password] → [Clicks on the dropdownbox] → [Select PLO Achieved Vs Attempted] → [Use SQL Operation] → [Monitor Relational Data Model of the PLO achieved and Attempted by the individual student or comparison as desired in the School] → 
Higher Authority (VC/Dean)	→ [Logs into the dashboard using UserID and password] → [Clicks on the dropdownbox] → [Select PLO Achieved Vs Attempted] → [Use SQL Operation] → [Monitor Relational Data Model of the PLO achieved and Attempted by the individual student or comparison as desired in the School] →

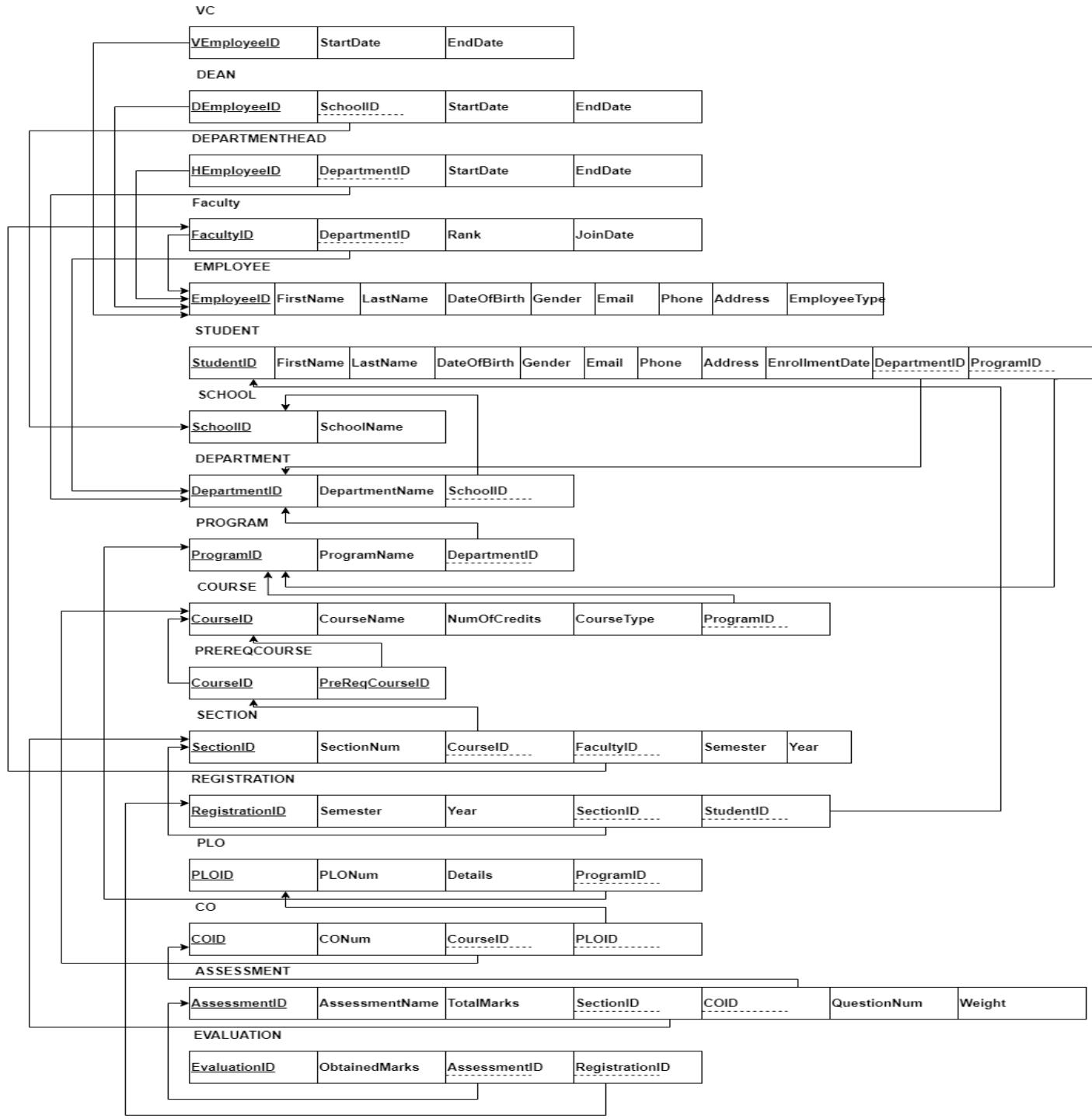




ERD



ERD to Relations



NORMALIZATION

Registration	RegistrationID	r1	Evaluation	EvaluationID	e1
	Semester	r2		ObtainedMarks	e2
	Year	r3		AssessmentID	a1
	StudentID	s1		RegistrationID	r1
	SectionID	q1		StudentID	s1
Section	SectionID	q1	Student	FirstName	s2
	SectionNum	q2		LastName	s3
	Semester	q3		DateOfBirth	s4
	Year	q4		Gender	s5
	CourseID	o1		Email	s6
	FacultyID	f1		Phone	s7
Course	CourseID	o1		Address	s8
	CourseName	o2		EnrollmentDate	s9
	NumOfCredits	o3		ProgramID	g1
	CourseType	o4		DepartmentID	d1
	ProgramID	g1			

			EmployeeID	m1
Program	ProgramID	g1	Employee	FirstName m2
	ProgramName	g2		LastName m3
	DepartmentID	d1		DateOfBirth m4
	SchoolID	l1		Gender m5
	SchoolName	l2		Email m6
	DepartmentID	d1		Phone m7
	DepartmntName	d2		Address m8
	SchoolID	l1		EmployeeType m9
	COID	c1	VC	VEmployeeID v1
CO	CONum	c2		StartDate v2
	CourseID	o1		EndDate v3
	PLOID	p1	Dean	DEmployeeID n1
				SchoolID l1
				StartDate n2
				EndDate n3

Assessment	AssessmentID	a1	Department Head		
	AssessmentName	a2			
	TotalMarks	a3			
	SectionID	q1		HEmployeeID	h1
	COID	c1		DepartmentID	d1
	QuestionNum	a4		StartDate	h2
PreReqCourse	Weight	a5		EndDate	h3
	CourseID	j1	Faculty	FacultyID	f1
PLO	PreReqCourseID	j2		DepartmentID	d1
	PLOID	p1		Rank	f2
PLO	PLONum	p2		JoinDate	f3
	Details	p3			
	ProgramID	g1			

$I_1 \rightarrow$	I_2	$J_1 \rightarrow$	J_2
$d_1 \rightarrow$	d_2, I_1	$o_1 \rightarrow$	o_2, o_3, o_4, g_1
$q_1 \rightarrow$	g_2, d_1	$q_1 \rightarrow$	q_2, q_3, q_4, o_1, f_1
$m_1 \rightarrow$	$m_2, m_3, m_4, m_5, m_6, m_7, m_8, m_9$	$p_1 \rightarrow$	p_2, p_3, g_1
$v_1 \rightarrow$	v_2, v_3	$c_1 \rightarrow$	c_2, o_1, p_1
$n_1 \rightarrow$	n_2, n_3, I_1	$r_1 \rightarrow$	r_2, r_3, s_1, q_1
$h_1 \rightarrow$	h_2, h_3, d_1	$a_1 \rightarrow$	$a_2, a_3, a_4, a_5, q_1, c_1$
$f_1 \rightarrow$	f_2, f_3, d_1	$e_1 \rightarrow$	e_2, a_1, r_1
$s_1 \rightarrow$	$s_2, s_3, s_4, s_5, s_6, s_7, s_8, s_9, g_1, d_1$		

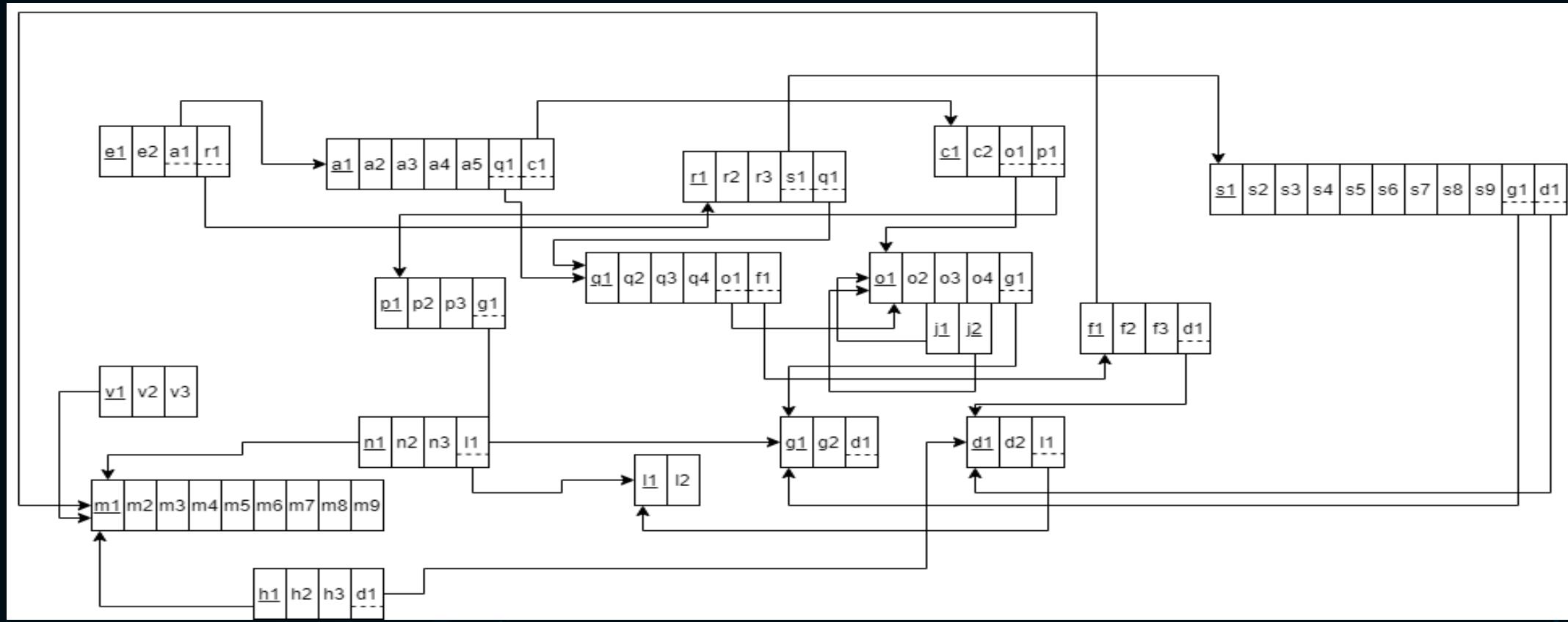
1 NF

e1	e2	a1	a2	a3	a4	a5	r1	r2	r3	q1	q2	q3	q4	c1	c2	s1	s2	s3	s4	s5	s6	s7	s8	s9	o1	o2	o3	o4	p1	p2	p3	g1	g2	d1	d2	l1	l2	f1	f2	f3
m1	m2	m3	m4	m5	m6	m7	m8	m9	h1	h2	h3	n1	n2	n3	v1	v2	v3	j1	j2																					

2 NF

e1	e2	a1	a2	a3	a4	a5	r1	r2	r3	q1	q2	q3	q4	c1	c2	s1	s2	s3	s4	s5	s6	s7	s8	s9	o1	o2	o3	o4	p1	p2	p3	g1	g2	d1	d2	l1	l2	f1	f2	f3	j1	j2
m1	m2	m3	m4	m5	m6	m7	m8	m9	h1	h2	h3	n1	n2	n3	v1	v2	v3																									

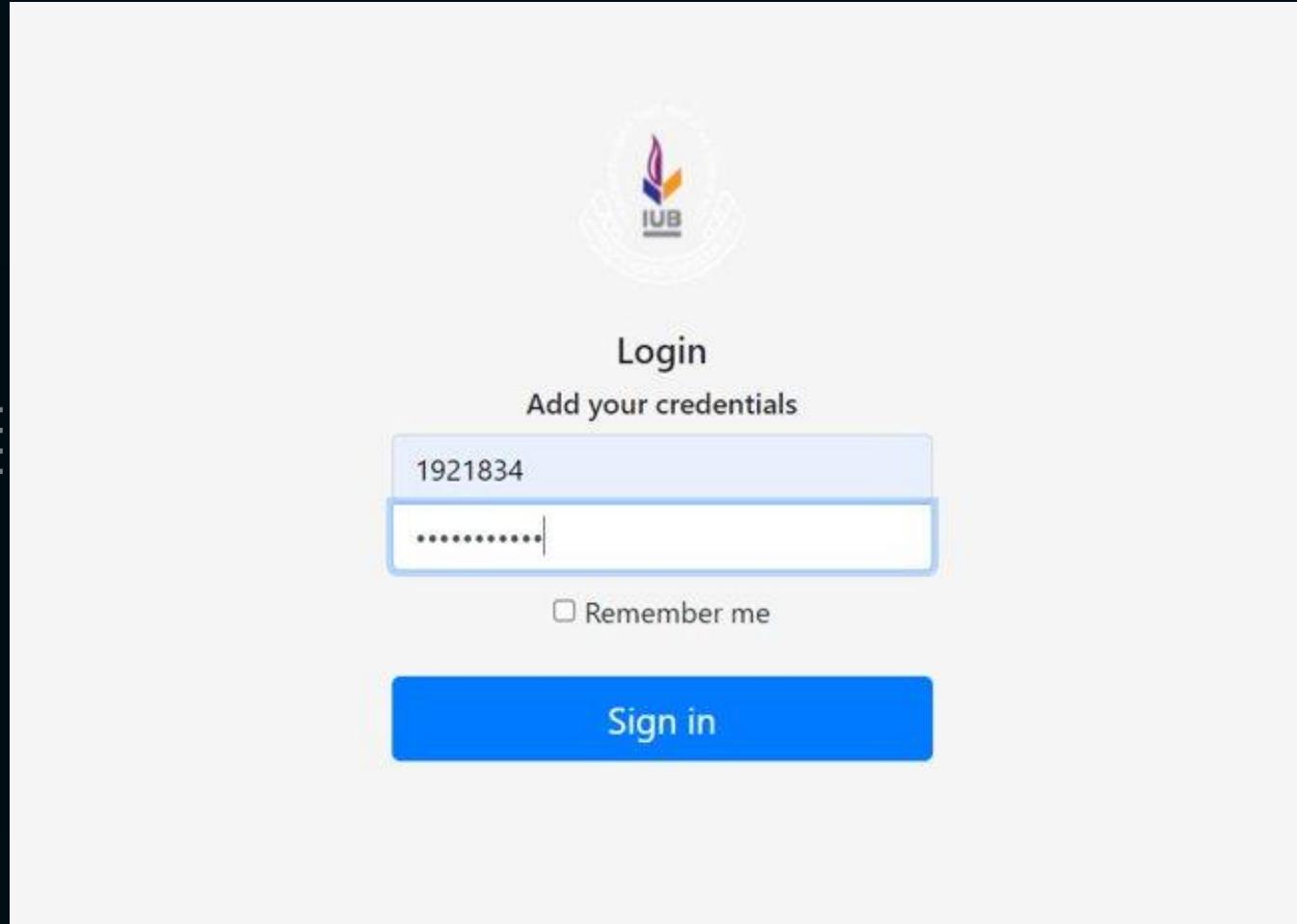
3 NF



BCNF: All determinants are candidate keys. There is no determinant that is not a unique identifier. Here, all the relations already are in BCNF.



IMPLEMENTATION



Log In Dashboard of SPMS2.0

- Front End: HTML, Java Script, Bootstrap and CSS
- **Local hosting: spmapp**
- Backend: Python, Django



- DASHBOARD

- STUDENT ENROLLMENT

- GPA ANALYSIS

- PLO ANALYSIS

- PLO COMPARISON

- PLO & CO REPORT

- PLO STATS

- STUDENT WISE PLO TABLE

- LOGOUT

Number of Courses: 49

Average PLO mapped: 4

Number of Students: 1584

Average Achieved PLO: 5.2

Number of Faculties: 51

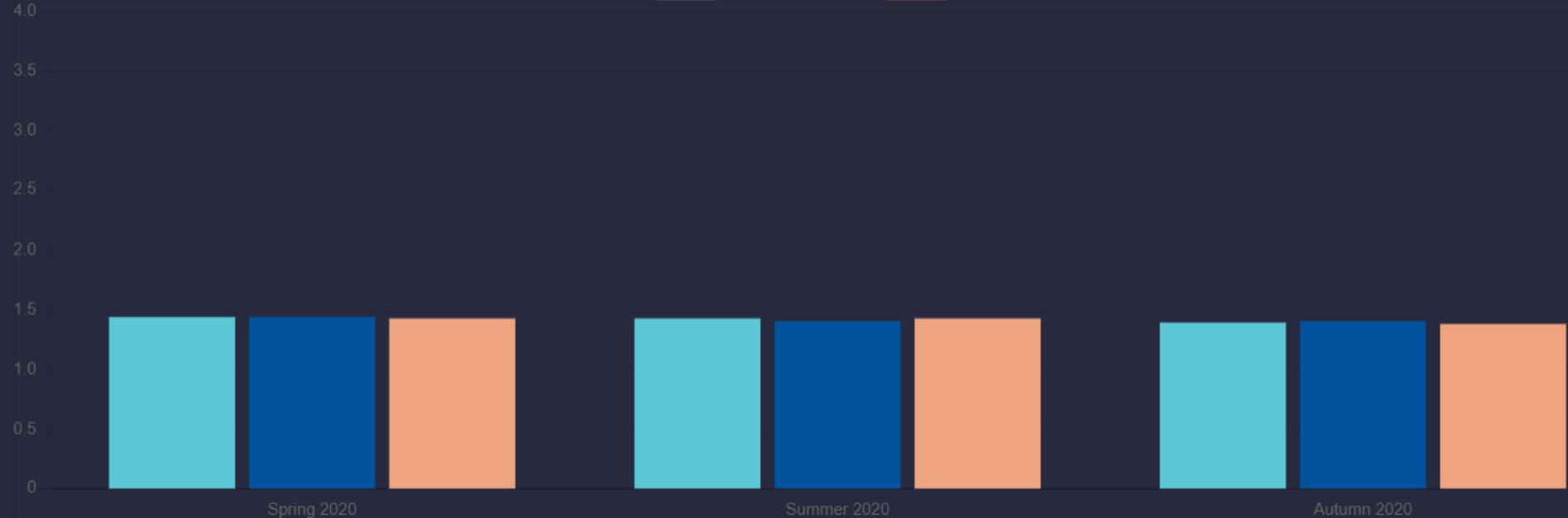
Practising Semesters: 3



GPA Performance

School Department Program

SETS SBE SLASS



[DASHBOARD](#)[STUDENT ENROLLMENT](#)[GPA ANALYSIS](#)[PLO ANALYSIS](#)[PLO COMPARISON](#)[PLO & CO REPORT](#)[PLO STATS](#)[STUDENT WISE PLO TABLE](#)[LOGOUT](#)

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GPA Performance

[School](#) [Department](#) [Program](#)

• DASHBOARDPI STUDENT ENROLLMENTgraduation cap GPA ANALYSISbar chart PLO ANALYSIScomparison icons PLO COMPARISONdocument PLO & CO REPORTchart PLO STATSperson STUDENT WISE PLO TABLEperson walking LOGOUT

Number of Courses: 49

Average PLO mapped: 4

Number of Students: 1584

Average Achieved PLO: 5.2

Number of Faculties: 51

Practising Semesters: 3



GPA Performance

light blue B.Sc. in CSE dark blue BBA in Accounting orange B.Sc. in EEE green BBA in MIS light green BA in ENG pink BSS in GSG



Student Enrollment Analysis

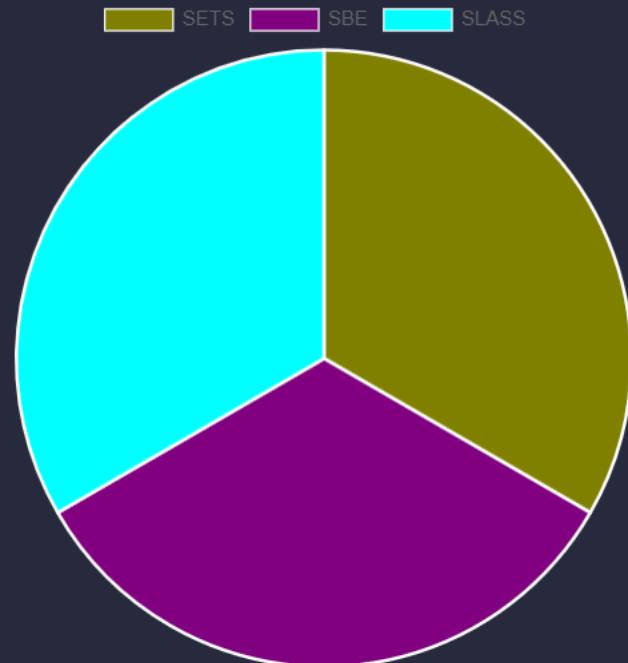
From

Spring 2020

To

Autumn 2020

Enter



School Wise

Department Wise

Program Wise

DASHBOARD

STUDENT ENROLLMENT

GPA ANALYSIS

PLO ANALYSIS

PLO COMPARISON

PLO & CO REPORT

PLO STATS

STUDENT WISE PLO TABLE

LOGOUT





DASHBOARD



STUDENT ENROLLMENT



GPA ANALYSIS



PLO ANALYSIS



PLO COMPARISON



PLO & CO REPORT



PLO STATS



STUDENT WISE PLO TABLE



LOGOUT

Student Enrollment Analysis

From

Spring 2020

To

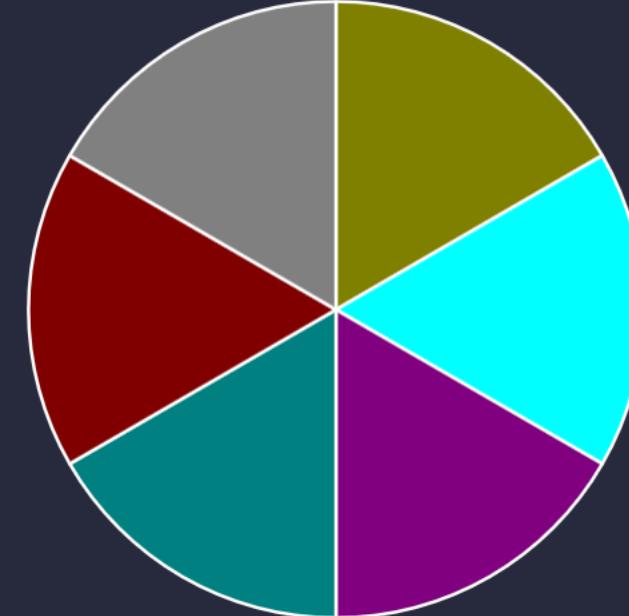
Autumn 2020

Enter

School Wise

Department Wise

Program Wise





Student Enrollment Analysis

From

Spring 2020

To

Autumn 2020

Enter

█ B.Sc. in CSE █ BBA in Accounting █ B.Sc. in EEE █ BBA in MIS █ BA in ENG █ BSS in GSGSchool Wise Department Wise Program Wise█ DASHBOARD● STUDENT ENROLLMENT█ GPA ANALYSIS█ PLO ANALYSIS█ PLO COMPARISON█ PLO & CO REPORT█ PLO STATS█ STUDENT WISE PLO TABLE█ LOGOUT



DASHBOARD

STUDENT ENROLLMENT

GPA ANALYSIS

PLO ANALYSIS

PLO COMPARISON

PLO & CO REPORT

PLO STATS

STUDENT WISE PLO TABLE

LOGOUT

Course Wise Student Performance

Course

CSE104, CSE201, CSE203

From

Spring 2020

To

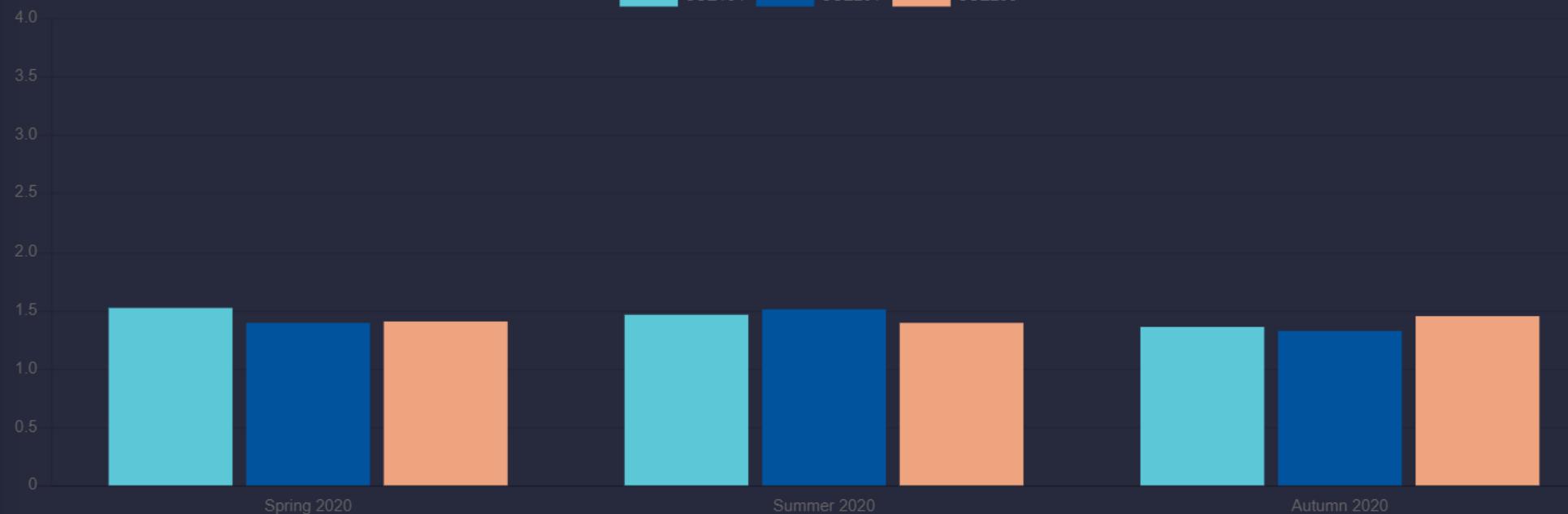
Autumn 2020

Enter



GPA Performance

CSE104 CSE201 CSE203





DASHBOARD

STUDENT ENROLLMENT

GPA ANALYSIS

PLO ANALYSIS

PLO COMPARISON

PLO & CO REPORT

PLO STATS

STUDENT WISE PLO TABLE

LOGOUT

Instructor Wise Student Performance

Instructors

Mahady Hasan, Sadita

From

Spring 2020

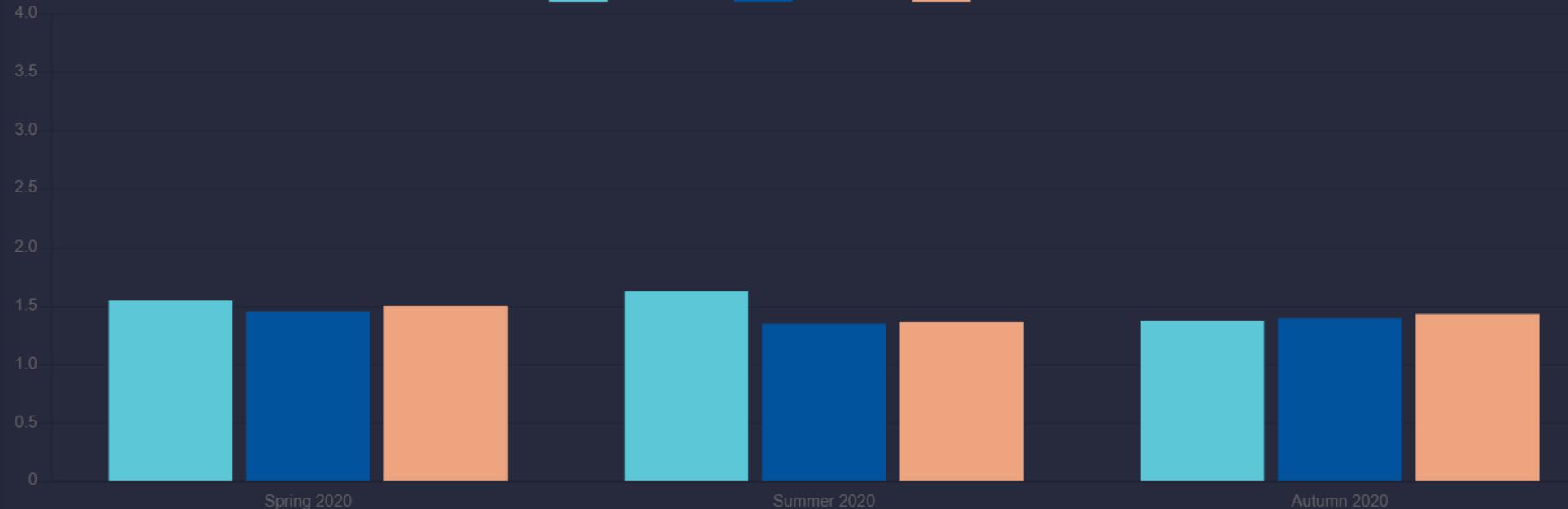
To

Autumn 2020

Enter



GPA Performance

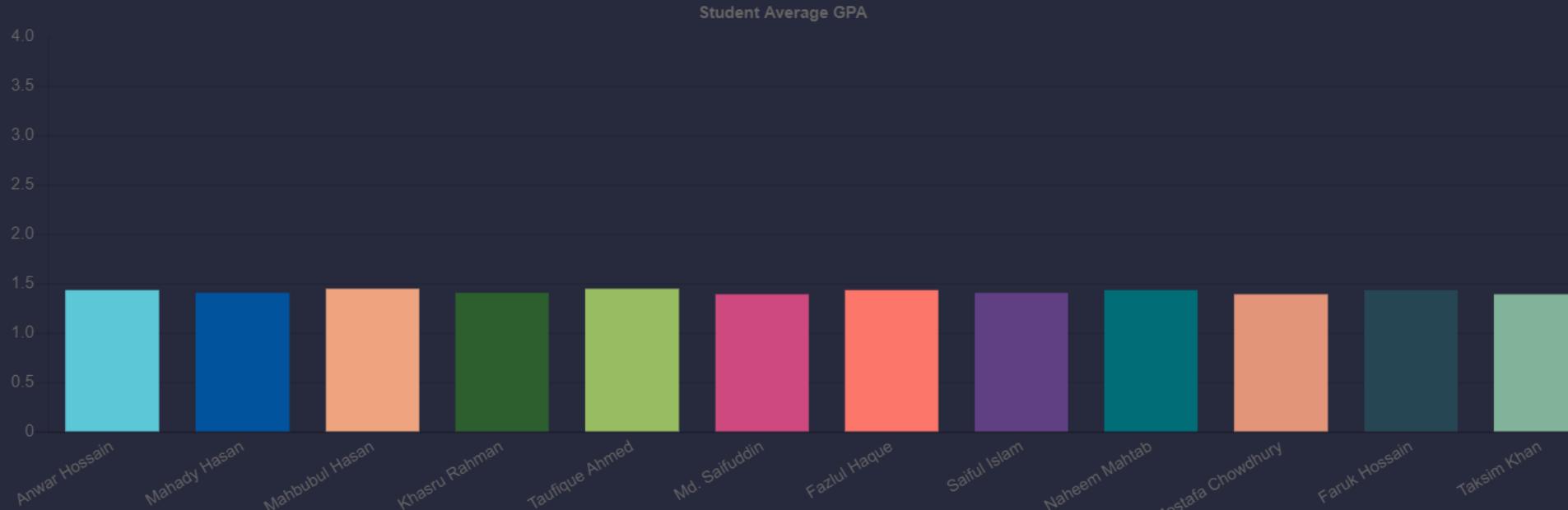




- [DASHBOARD](#)
- [STUDENT ENROLLMENT](#)
- [GPA ANALYSIS](#)
- [PLO ANALYSIS](#)
- [PLO COMPARISON](#)
- [PLO & CO REPORT](#)
- [PLO STATS](#)
- [STUDENT WISE PLO TABLE](#)
- [LOGOUT](#)

Head/Dean/VC Wise Student Performance Analysis

[Head](#) [Dean](#) [VC](#)

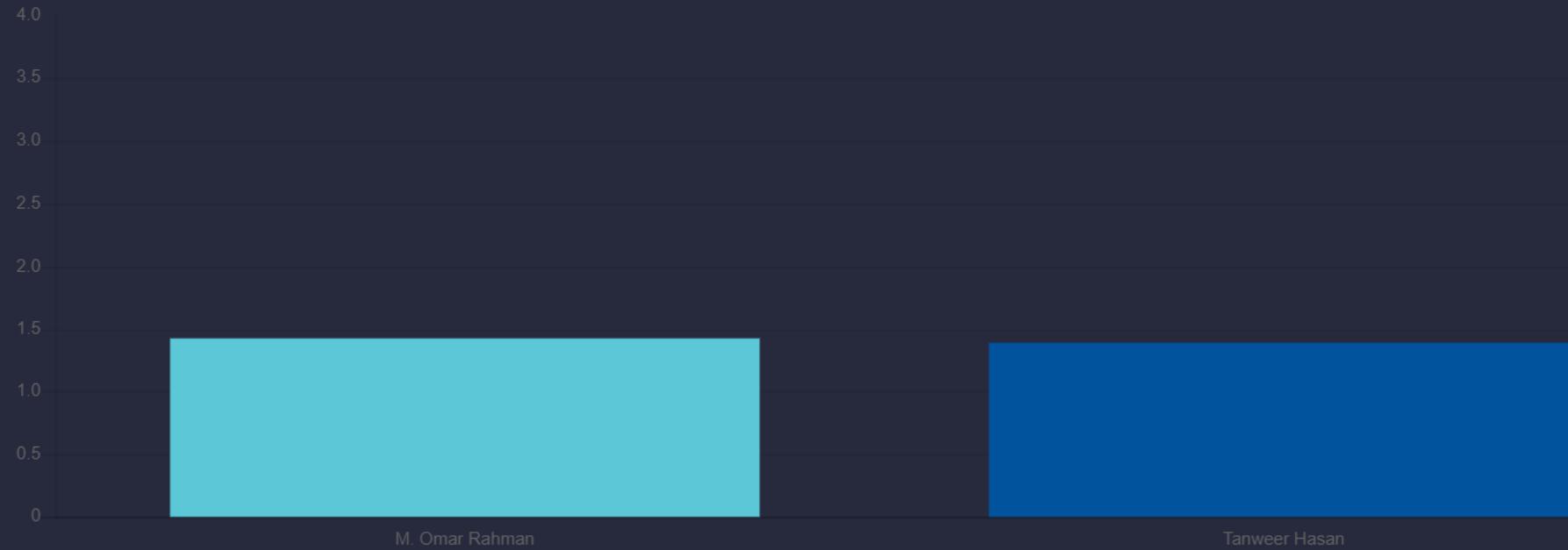




Head/Dean/VC Wise Student Performance Analysis

Head Dean VC

Student Average GPA



DASHBOARD



STUDENT ENROLLMENT



GPA ANALYSIS



PLO ANALYSIS



PLO COMPARISON



PLO & CO REPORT



PLO STATS



STUDENT WISE PLO TABLE



LOGOUT



DASHBOARD

STUDENT ENROLLMENT

GPA ANALYSIS

PLO ANALYSIS

PLO COMPARISON

PLO & CO REPORT

PLO STATS

STUDENT WISE PLO TABLE

LOGOUT

Instructor Wise Student Performance for a Course

Course

CSE201

From

Spring 2020

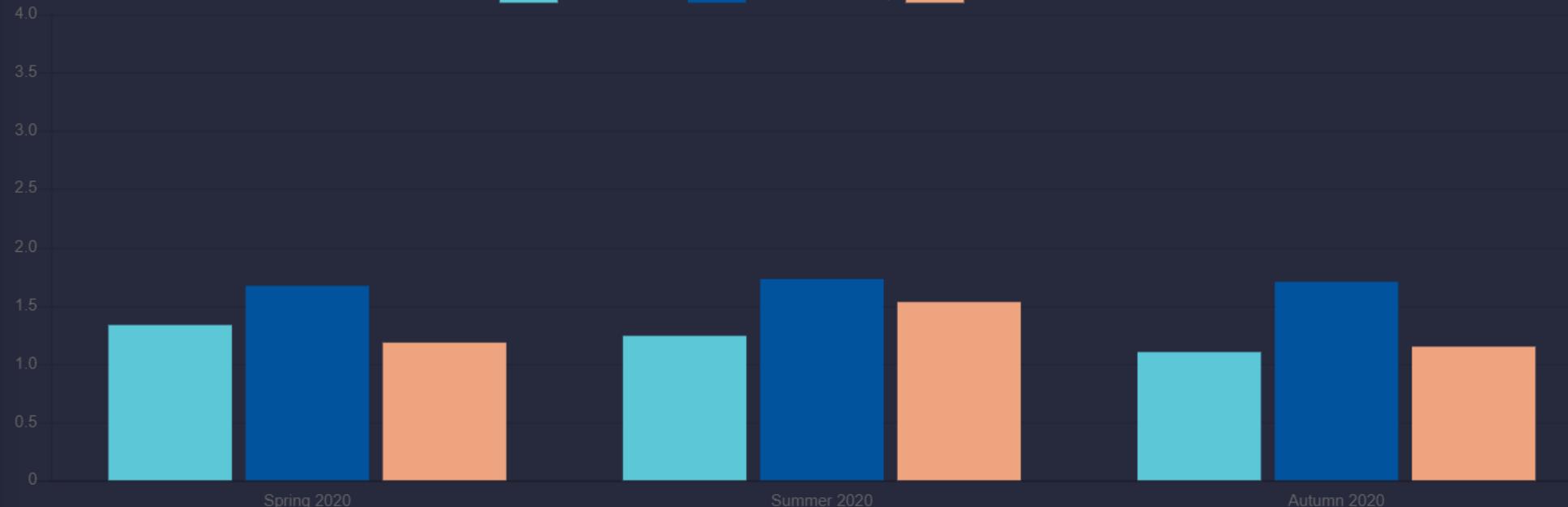
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Autumn 2020

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GPA Performance





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PLO COMPARISON

PLO & CO REPORT

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Student wise PLO Analysis

1416455

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PLO Analysis of Student

Overall PLO CO wise Course Wise



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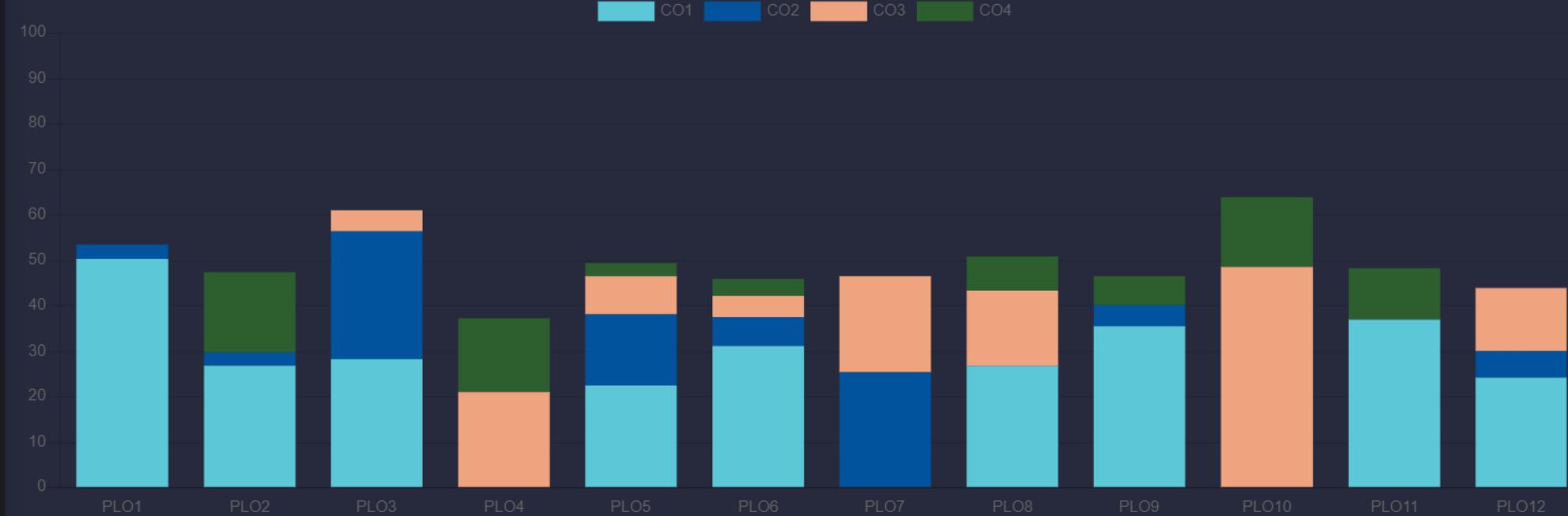
Student wise PLO Analysis

1416455

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PLO Analysis of Student

Overall PLO CO wise Course Wise





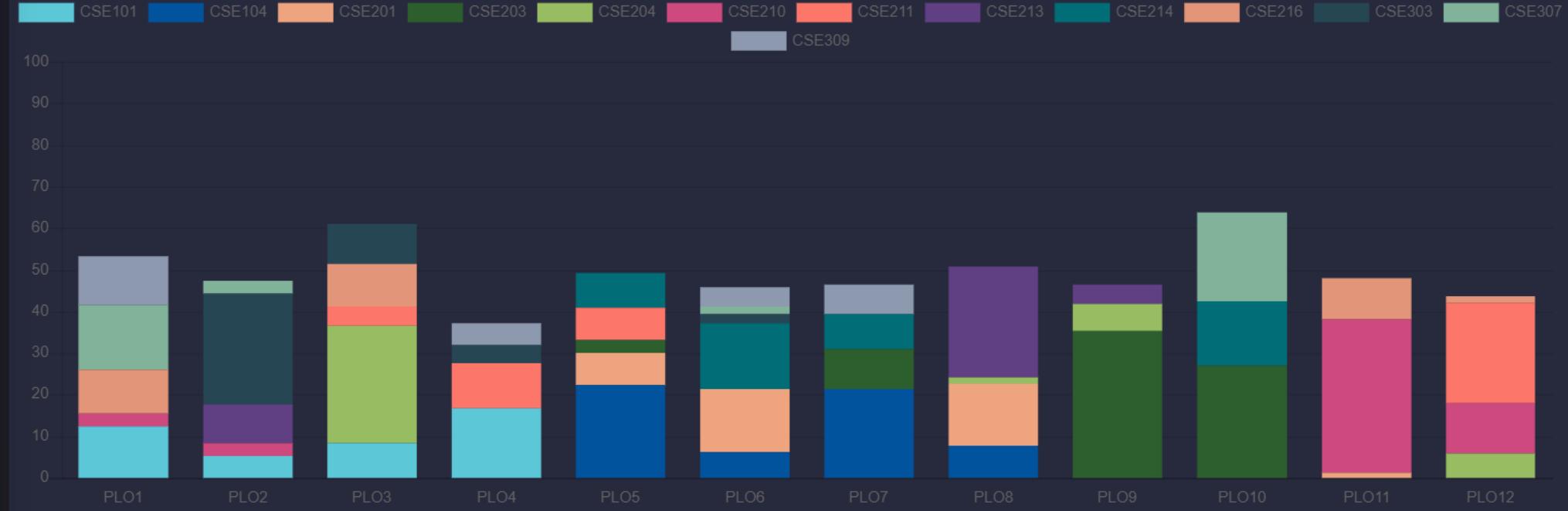
Student wise PLO Analysis

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PLO Analysis of Student

Overall PLO CO wise Course Wise

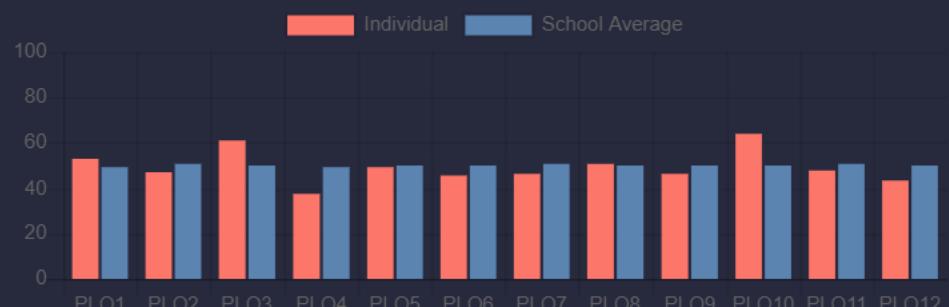




PLO Analysis of Student With Program Average



PLO Analysis of Student With School Average



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Semester Wise PLO Achievement Comparison For Student

1416455

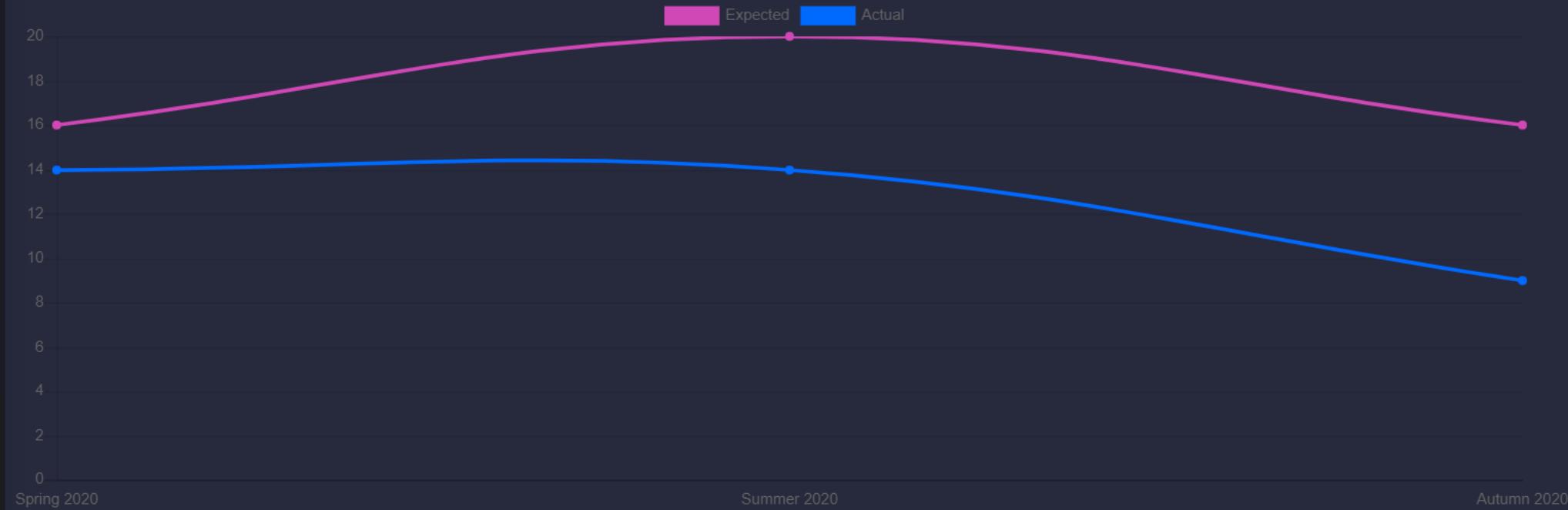
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Semester Wise PLO Achievement Comparison For Course

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CSE104

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Semester Wise PLO Achievement Comparison For Program

Program

B.Sc. in CSE

From

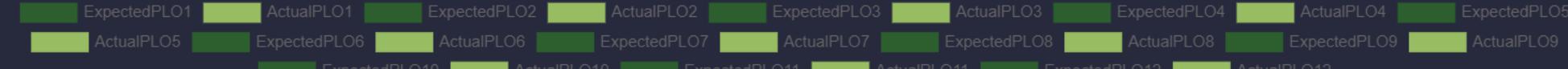
Spring 2020

To

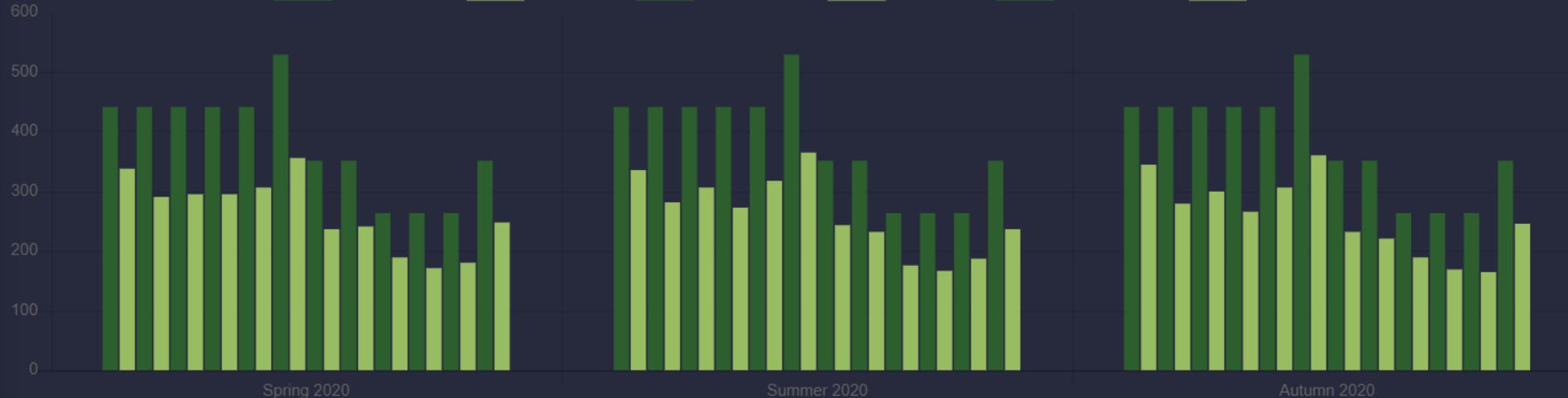
Autumn 2020

Search 

Expected Vs Actual PLO



Legend: ExpectedPLO1, ActualPLO1, ExpectedPLO2, ActualPLO2, ExpectedPLO3, ActualPLO3, ExpectedPLO4, ActualPLO4, ExpectedPLO5, ActualPLO5, ExpectedPLO6, ActualPLO6, ExpectedPLO7, ActualPLO7, ExpectedPLO8, ActualPLO8, ExpectedPLO9, ActualPLO9, ExpectedPLO10, ActualPLO10, ExpectedPLO11, ActualPLO11, ExpectedPLO12, ActualPLO12





Semester Wise PLO Achievement Comparison For Department



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Expected Vs Actual PLO





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Semester Wise PLO Achievement Comparison For School

School

SETS

From

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Expected Vs Actual PLO

Legend: ExpectedPLO1, ActualPLO1, ExpectedPLO2, ActualPLO2, ExpectedPLO3, ActualPLO3, ExpectedPLO4, ActualPLO4, ExpectedPLO5, ActualPLO5, ExpectedPLO6, ActualPLO6, ExpectedPLO7, ActualPLO7, ExpectedPLO8, ActualPLO8, ExpectedPLO9, ActualPLO9, ExpectedPLO10, ActualPLO10, ExpectedPLO11, ActualPLO11, ExpectedPLO12, ActualPLO12





PLO & CO Achievement Report For Course



DASHBOARD



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STUDENT WISE PLO TABLE



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BUS202

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Total Students: 264

CO	PLO	SUCCESSFULLY ACHIEVED	SUCCESSFUL PERCENTAGE (%)	FAILED TO ACHIEVE	FAILED PERCENTAGE (%)
CO1	PLO1	194.0	73.485	70.0	26.515
CO2	PLO2	182.0	68.939	82.0	31.061
CO3	PLO3	168.0	63.636	96.0	36.364
CO4	PLO4	189.0	71.591	75.0	28.409



PLO & CO Achievement Report For Program

BBA in Accounting

Search



CO/PLO	ATTEMPTED	SUCCESSFULLY ACHIEVED	SUCCESSFUL PERCENTAGE (%)	FAILED TO ACHIEVE	FAILED PERCENTAGE (%)
CO1	264	249	94.32	15	5.68
CO2	264	252	95.45	12	4.55
CO3	264	239	90.53	25	9.47
CO4	264	252	95.45	12	4.55
PLO1	264	222	84.09	42	15.91
PLO2	264	223	84.47	41	15.53
PLO3	264	203	76.89	61	23.11
PLO4	264	219	82.95	45	17.05
PLO5	264	216	81.82	48	18.18
PLO6	264	214	81.06	50	18.94
PLO7	264	215	81.44	49	18.56
PLO8	264	218	82.58	46	17.42
PLO9	264	227	85.98	37	14.02
PLO10	264	221	83.71	43	16.29
PLO11	264	195	73.86	69	26.14
PLO12	264	216	81.82	48	18.18



DASHBOARD



STUDENT ENROLLMENT



GPA ANALYSIS



PLO ANALYSIS



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PLO & CO Achievement Report For Department

ENG

Search



CO/PLO	ATTEMPTED	SUCCESSFULLY ACHIEVED	SUCCESSFUL PERCENTAGE (%)	FAILED TO ACHIEVE	FAILED PERCENTAGE (%)
CO1	264	241	91.29	23	8.71
CO2	264	238	90.15	26	9.85
CO3	264	226	85.61	38	14.39
CO4	264	244	92.42	20	7.58
PLO1	264	204	77.27	60	22.73
PLO2	264	204	77.27	60	22.73
PLO3	264	190	71.97	74	28.03
PLO4	264	216	81.82	48	18.18
PLO5	264	206	78.03	58	21.97
PLO6	264	201	76.14	63	23.86
PLO7	264	197	74.62	67	25.38
PLO8	264	203	76.89	61	23.11
PLO9	264	202	76.52	62	23.48
PLO10	264	194	73.48	70	26.52
PLO11	264	201	76.14	63	23.86
PLO12	264	211	79.92	53	20.08



DASHBOARD



STUDENT ENROLLMENT



GPA ANALYSIS



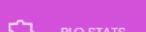
PLO ANALYSIS



PLO COMPARISON



PLO & CO REPORT



PLO STATS



STUDENT WISE PLO TABLE



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PLO & CO Achievement Report For School

SBE

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CO/PLO	ATTEMPTED	SUCCESSFULLY ACHIEVED	SUCCESSFUL PERCENTAGE (%)	FAILED TO ACHIEVE	FAILED PERCENTAGE (%)
CO1	528	500	94.7	28	5.3
CO2	528	497	94.13	31	5.87
CO3	528	470	89.02	58	10.98
CO4	528	487	92.23	41	7.77
PLO1	528	424	80.3	104	19.7
PLO2	528	437	82.77	91	17.23
PLO3	528	394	74.62	134	25.38
PLO4	528	420	79.55	108	20.45
PLO5	528	401	75.95	127	24.05
PLO6	528	397	75.19	131	24.81
PLO7	528	386	73.11	142	26.89
PLO8	528	405	76.7	123	23.3
PLO9	528	451	85.42	77	14.58
PLO10	528	447	84.66	81	15.34
PLO11	528	404	76.52	124	23.48
PLO12	528	431	81.63	97	18.37



DASHBOARD



STUDENT ENROLLMENT



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Program Wise Overall PLO Achievement Statistics

Program

B.Sc. in EEE

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Achieved Attempted



Press F11 to exit full screen

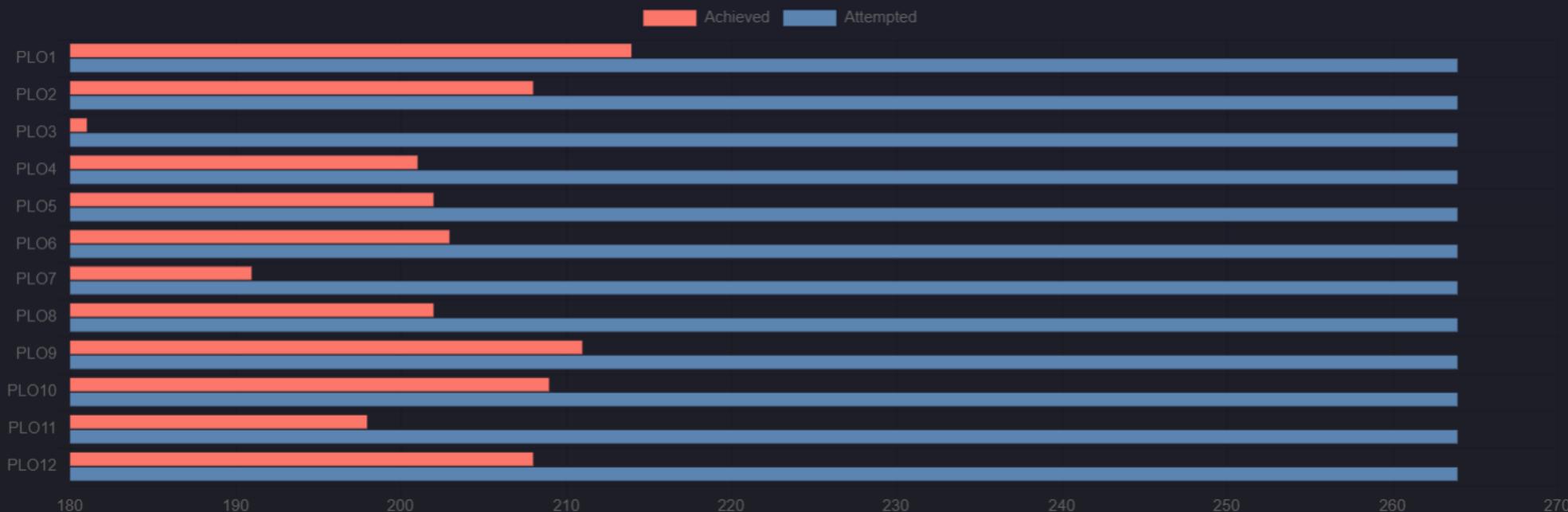
Department Wise Overall PLO Achievement Statistics



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GSG

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School Wise Overall PLO Achievement Statistics

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Student PLO Achievement Table

1823001

Search



COURSE	PLO01	PLO02	PLO03	PLO04	PLO05	PLO06	PLO07	PLO08	PLO09	PLO10	PLO11	PLO12
EEE131	65.71%	44.0%	56.92%	75.56%	N/A							
EEE132	N/A	N/A	N/A	N/A	27.14%	70.77%	31.11%	69.0%	N/A	N/A	N/A	N/A
EEE211	N/A	67.27%	48.57%	32.0%	33.33%							
EEE221	30.3%	86.67%	51.43%	54.0%	N/A							
EEE223	N/A	N/A	N/A	N/A	48.48%	54.29%	100.0%	93.33%	N/A	N/A	N/A	N/A
EEE234	N/A	61.82%	22.86%	56.0%	76.67%							
EEE311	42.42%	20.0%	25.71%	78.0%	N/A							
EEE313	N/A	N/A	N/A	N/A	58.57%	63.08%	13.33%	20.0%	N/A	N/A	N/A	N/A
EEE321	N/A	40.0%	53.85%	42.22%	24.0%							



DASHBOARD

CO WISE PLO ANALYSIS

COURSE WISE PLO ANALYSIS

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📊 PLO Achievement



✿ GPA Performance



📊 PLO Analysis





DASHBOARD

STUDENT WISE PLO ANALYSIS

STUDENT WISE PLO TABLE

PLO ACHIEVEMENT STATISTICS

COURSE REPORT

DATA ENTRY

LOGOUT

Courses Taught: 3

Number of PLOs Taught: 7

Practising Semesters: 3

PLO Success rate: 70.78%



🔔 Department Average PLO



↗ Department Average GPA



Thank you