Course Enrollment System

Project Description:

The project objective will be focused on developing a course enrollment system to ensure the effectiveness of the flow of enrol.Moreover the system will offer a complete management system that integrates with the course enrollment system to help the students maintain the flow process of the course. The enrollment process can be done online without the need of paperwork anymore. It also helps the student to get more information about the course process while they are enrolled. This system allows the students to enrol to a section.It can help for the student need to enrol by giving necessary details, for the desired course. Students can easily register into the website without any difficulty and can easily understand and also time taken for registration is less.It identifies a specific section of a course being offered. In our website there will be an Admin,Professor and Student.The admin will manage the entire website and the admin login to the website by the predefined credentials. The admin will add the courses on the website. Admin also active and deactive the professor's and students who registered into the website. The administrator will create the sections with a unique CRN with respect to a professor and course.

The professor will login with email and the password.The professor will add and view the sections. The student will login with email and the password.The choice of selecting the section while going to the manual method is so difficult. When a student has successfully chosen a section, students can enrol in that section and also the student can drop in the middle of the section. After enrolling to the section the students can see the details of his/her current course. The section contains limited students.The enrolled sections can be seen by the professor when students enrolled to the particular course. The student will submit the assignments after completion of the course. Now the professor can view the assignments which are submitted by the students and give the grades and marks to the student.

For deploying the Project we use the Cloud services like:

1. **VPC (Virtual Private Cloud):**

VPC enables us to launch AWS resources into a virtual network. It is appropriately sized to have an IP address assigned to each instance.We create a VPC to operate our own

cloud. After that we create subnets for the range of IP addresses to our VPC. After adding subnets we can develop AWS resources in our VPC. We use route tables to determine the network traffic from our subnet. We use an internet gateway that enables instances to connect to the internet through the Amazon EC2 network.

2. **EC2(Elastic Compute Cloud):**

This service is used to develop and deploy the application faster.We use this service to host our application. In this service we can launch 3 types of servers like Windows, Linux and App servers, in these we are using Windows server to host our application. For connecting the launched server we are using the private key of the key pair to launch our instance. In this instance we are going to install softwares like Pycharm, MySQL and Python for our project and work on it.After the instance starts it changes to running and it receives a public DNS name. With the Public IP address we can communicate with the Internet.

3. **RDS(Relational Database Service):**

RDS instance is a cloud database environment.We use this service for managing the application database where it allows us to manipulate data easily. In this we are going to use the MYSQL server as our database,how many depends on the database used. We are able to connect DB instances using Username and Password with help of mysql workbench.

4. **S3(Simple Storage Service):**

We use this service as it is highly recommended to store the static and dynamic assets such as images, videos and documents. In this project we have a poster where we have to upload the image file into a bucket. A bucket is a container or a folder to store the objects.Each object name is a key in the S3 bucket. When the object is in a bucket we can download it and move it.Sql databases are not recommended to store the files so that's the reason we are using S3 service as it is a faster way. For storings this object(file) we create a bucket and then we upload the object to the bucket.

5. **SES(Simple Email Service):**

SES is an email tool.In our project we are going to use the SES email platform to send and receive emails using our own email addresses and domains. We create an identity under SES which has to be verified to send an email. AWS has given an SDK in python that is the boto3 module where we import boto3 into our environment to send an email.