**Mentorship Program - Smart Assignment Engine**

Smart Assignment is a web-based application designed to streamline the process of assignment management and enhance collaboration among students, teachers, and administrators. This project aims to leverage web development technologies to create an intelligent platform that automates assignment creation, submission, grading, and feedback, thereby improving the efficiency and effectiveness of the assignment process. Students can access the platform to view and submit assignments.

The application allows for secure file uploads, ensuring the integrity and confidentiality of submitted work. The system provides notifications and reminders to students about upcoming assignment due dates and any updates or clarifications from teachers. Smart Assignment aims to enhance the assignment management process, promote collaboration, and improve educational outcomes. By leveraging intelligent technologies and providing a userfriendly interface, the application streamlines administrative tasks, enhances student-teacher communication, and facilitates a more efficient and engaging learning experience.

In this application, I created frontend which is an interface for the user with different html pages like

1. Admin Profile
2. Admin Register
3. Contact
4. Faculty Profile
5. Index
6. Login
7. Faculty marks
8. Student Profile
9. Facultystu list
10. Student submit

After this, I had created backend using IBM\_DB in IBM Cloud account, where I had created tables, then by using Flask, I had integrated both the front end pages with the backend tables.

Then, by using Docker desktop and Docker hub, I had created a docker image which contains all my files in a package. After that using Kubernetes K8S which is an open source container orchestration system that creates a YAML file.

The final step is to create application deployment in open shift using Redhat Open shift in different ways like

1. Deploying with Git Repository
2. Deploying with Docker Image
3. Deploying with YAML file