

# Assignment 3

## Deliverables

### 1. Report outlining your proposed solution.

The aim of this project is to create an innovative educational platform that utilizes digital technology to enhance accessibility and flexibility while upholding rigorous educational standards. This solution draws inspiration from the Coursera model but incorporates essential innovations.

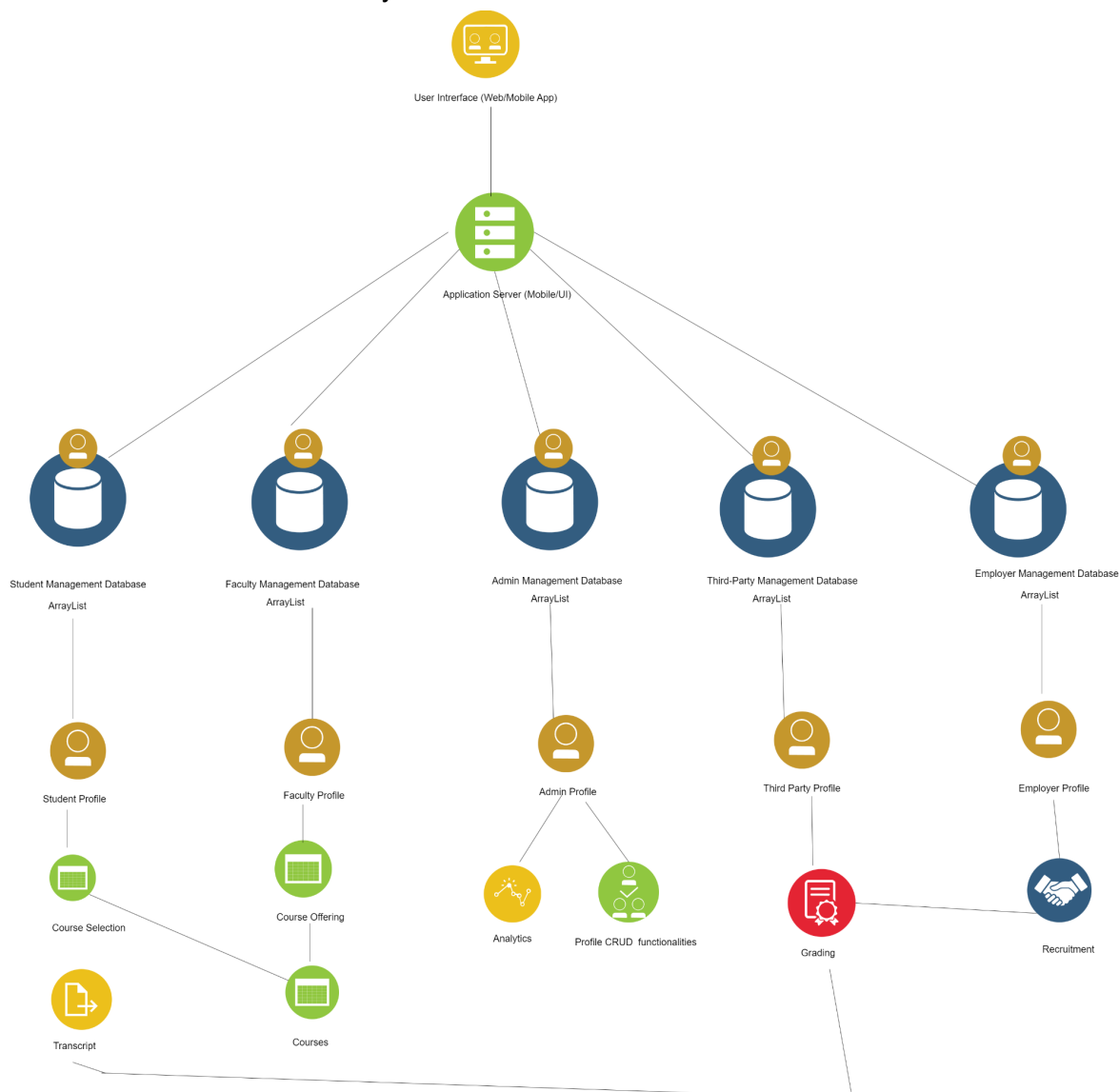
The Online Alternative Education Platform is a groundbreaking initiative inspired by successful models like Coursera but introducing essential innovations. It empowers professors with autonomy, enables global access to courses, and provides students with a diverse catalog of offerings. A reputation index guides student choices, and a central directory streamlines administrative tasks. Students can customize their degree paths, while a certification authority upholds rigorous standards. Leveraging technology, the platform enhances accessibility and affordability. Innovative features, including employer engagement and third-party certification, offer unique benefits. Data-driven analysis through a dashboard ensures continuous improvement. This project aligns with the vision of accessible and high-quality education for all.

### 2. Architecture diagram showing the new business model and how it is different from traditional university setup.

1. Ownership and Autonomy:
  - In the alternative platform, professors own and manage their courses autonomously. In traditional universities, course development and management are typically centralized.
2. Global Reach:
  - The alternative platform allows professors to operate from anywhere in the world, while traditional universities are often confined to physical campuses.
3. Student Choice:
  - Students in the alternative platform have the freedom to choose courses from professors worldwide. In traditional universities, students are limited to the courses offered by their specific institution.
4. Diverse Course Catalog:
  - The alternative platform offers a diverse and extensive course catalog with a wide range of topics and subjects. Traditional universities may have more limited offerings.
5. Reputation Index:
  - The alternative platform includes a reputation index to help students assess course quality. Traditional universities often rely on institutional reputation.
6. Flexible Access:
  - The alternative platform is accessible from various devices, including tablets, browsers, and smart devices, providing flexibility for students. Traditional universities may rely more on physical attendance.
7. Digital Data Flow:
  - The alternative platform's digital nature enables seamless data flow between professors, students, and the platform's database. Traditional universities may use paper-based systems.
8. Alternative Credentialing:

- Students can earn degrees by completing courses from multiple professors globally in the alternative platform. Traditional universities have fixed degree programs.

#### 9. Universal Student Directory:



- The alternative platform centralizes student information for easy access and management. Traditional universities may have decentralized student records.

#### 10. Certification Authority:

- The alternative platform features a certification authority that reviews students' course records and certifies graduation. Traditional universities have more complex and manual graduation requirements.

#### 11. Technology-Driven:

- The alternative platform leverages technology and online learning, while traditional universities may rely more on in-person teaching.

#### 12. Professor Empowerment:

- Professors in the alternative platform have the opportunity to build their brand and expand their teaching reach. Traditional university professors are often limited to their institution.

#### 13. Accessibility and Affordability:

- The alternative platform aims to make education easily accessible and affordable, potentially reducing tuition costs. Traditional universities may have higher tuition fees.

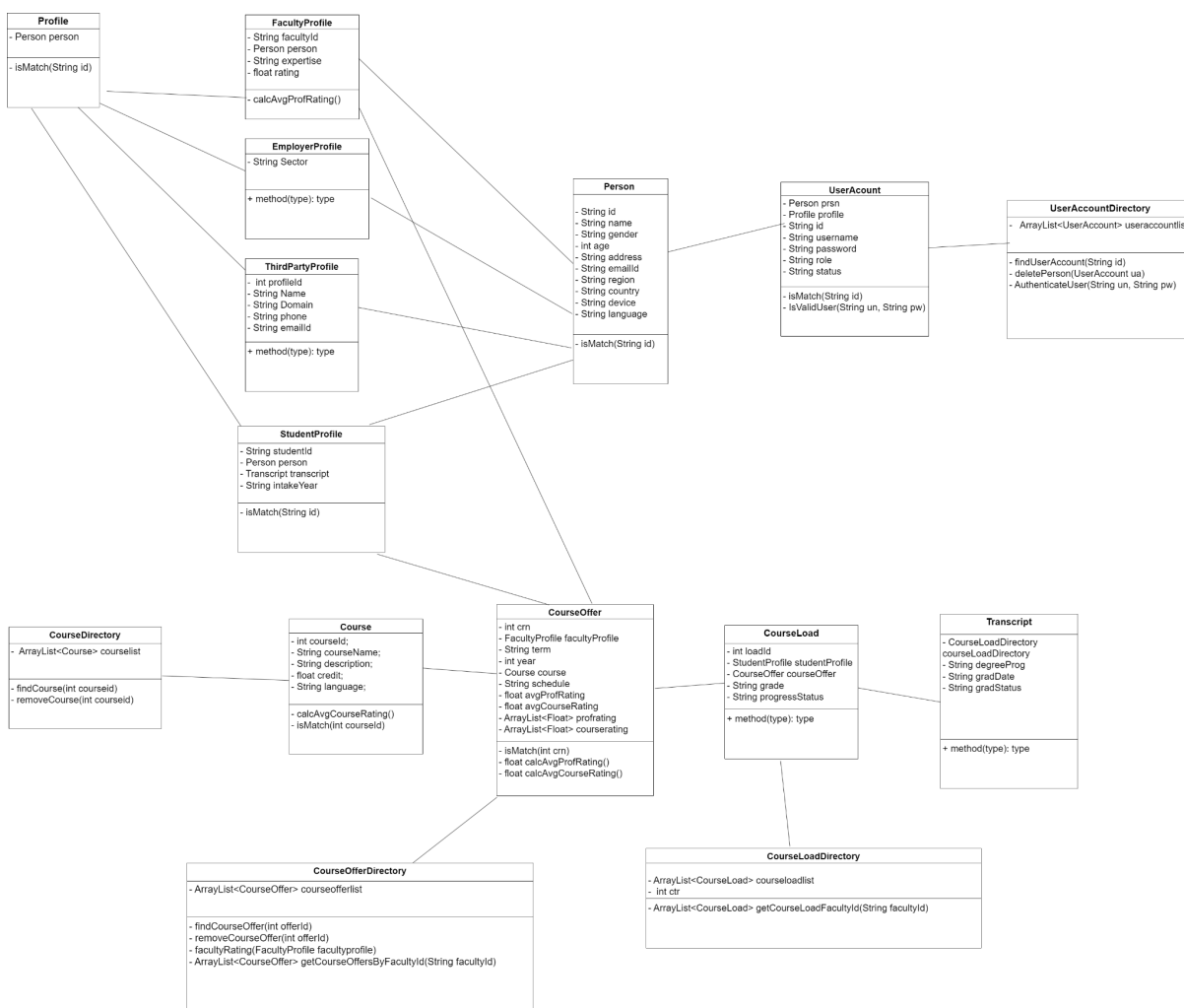
#### 14. Innovative Features:

- The alternative platform may incorporate innovative features like employer engagement, third-party certification, and user-driven use cases that traditional universities may lack.

#### 15. Data Collection and Analysis:

- The platform owners have a dashboard to collect and analyze performance data of various varieties, aiding in continuous improvement.

### 3. A class diagram showing the changes to the university model to support the new capabilities. This diagram must include the additional methods and attributes required to deliver the results.



### 4. A complete running application for all the different use cases outlined above.

1) System startup with all the initial configurations all worked out. These include universal student directory, a universal certification authority to say if a student is ready to graduate. A student is ready to graduate with an MS degree if they take 8 courses max. A directory of available courses and associated search capabilities will be in place to serve students.

- 2) A professor can sign up to the service and then able to manage their course catalog (1 or 2 courses) and semester-based course schedule.
- 3) Students would sign up to use the system. A transcript is created accordingly.
- 4) Professors create course schedule every term with the courses they plan to offer for that term.
- 5) Students browse the courses that are available from any professor anywhere in the world. They can search by professor name, topic, region, language, etc.
- 6) Students decide to register for classes. They will search for topics and register the courses they want to take. They should be able to see the professor rating before they register.
- 7) Students declare they want to graduate. The platform would review their transcript and indicate if the student satisfies graduation requirements.
- 8) Administrators can upload his/her image to enhance the platform's content.
- 9) Students can create PDF certificates and transcripts for their academic records.
- 10) Employers can browse student profiles and hire graduates through the platform.
- 11) A third-party authority reviews and approves students' graduation status.
- 12) Administrator can take the PDF of all the tables that he has access to.

## **5. Overall assessment and opinion on whether such digital educational platforms of the future will make education easily accessible and affordable to the less fortunate.**

In our evaluation, the implementation of digital educational platforms, as outlined in the project model, holds significant promise in democratizing education and making it more accessible and flexible. Here is our assessment and opinion:

### **Accessibility:**

Digital educational platforms, with their decentralized and online nature, break down geographical barriers. They enable students from diverse backgrounds and locations to access a wide array of courses and educational resources. This inclusivity enhances the accessibility of education, reaching those who might not have had such opportunities in traditional educational settings.

### **Flexibility and Diverse Learning Paths:**

Digital platforms empower students to customize their educational journeys. They can choose from a wide range of courses and specializations, allowing them to tailor their learning experiences to their specific

needs and career aspirations. This flexibility can be especially beneficial to those with unconventional schedules or specific learning goals.

### **Engagement with Employers:**

The integration of employers within the educational ecosystem is a game-changer. It offers students the opportunity to gain practical, industry-relevant skills and connects graduates directly with employment opportunities. This is of particular importance to those less fortunate, as it can streamline the transition from education to the job market.

The digital educational platforms of the future, as outlined in the project model, have the potential to address many of the accessibility and affordability challenges in education. They can offer inclusivity, flexibility, and enhanced engagement with employers, all of which are vital for individuals with limited financial means.

### **Conclusion:**

The Online Alternative Education Platform is a transformative solution that combines the best of digital technology with educational excellence. It opens up new possibilities for both professors and students, making education more accessible and flexible. The proposed innovations, such as the reputation index and alternative credentialing, promise to enhance the educational experience. This project aligns with the vision of using technology to improve the quality of life for the masses through accessible and innovative education.

This report outlines the core features and innovations of the proposed solution. Implementation will involve detailed system design, development, and testing to ensure the platform's success in achieving its objectives.