**SANTA CLARA UNIVERSITY**

Computer Engineering Department

Senior Design Project

**Agora Teaching App**

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ABSTRACT

Abstract goes here…

1. **Introduction**

Agora is a company that offers training to teachers. The professional development of most educators ends after their collegiate or masters program education. After that, time and money for more teaching education is impractical. In addition, a university teaches theoretical methods as opposed to the actual practice of teaching, and these methodologies can be stagnant and ineffective in the classroom. Agora exists to alleviate these problems. However, their current platform cannot be effectively scaled to be used outside of Lima, Peru because courses are taught in person. Additionally, the platform is not easily accessible because it lacks technology.

The users of the app include enterprises (schools, or school systems), topic experts, coaches and educators. Enterprises can use the app to delegate courses to various schools or educators. Experts provide the coursework materials and projects for the system. Coaches help train and teach the educators through the app. Finally, educators use the app to continue their education and collaborate with other teachers on their progress.

Current solutions include collegiate online courses and various other apps that provide courses for educators. Many of these apps, such as *Canvas*, a modern educational platform, are too expensive for the Latin American market. Other apps, such as *Coursera*,only provide educators with stagnant methodologies like lectures and quizzes. *Skillshare* focuses on interaction between users, but not on the teaching and learning of users. The bottom line, though, is that these solutions are not designed for the Latin American market, so they are less likely to succeed and fall short of Agora’s requirements.

Our solution is to create a web-based application that can deliver courses to users and allow for collaboration with others. In addition, the platform will allow experts and coaches in their fields to pay it forward by teaching and training educators. By creating an app for the model already in place, it automates the process, making it more simple and accessible for everyone. The app will promote various methodologies of teaching such as project-based learning. The app will provide course suggestions to users based on interests/taken courses. Our business model will be sustained by commission. We will attract users by offering free courses, similar to a free trial run.

Our solution is specifically customized for the Latin American market, a market in which this type of app has not been created yet. It is also customized for each individual user, who can filter their results based on interests or other circumstances. It connects experts, coaches, and educators to provide the best training for our users. Certain systems like *Coursera* only provide the educators with experts, who might not be able to teach in an effective way. Our system also allows for schools to delegate courses as they see fit, rather than what the educator might see fit. By expanding the reach of Agora, Latin American teachers will be well equipped to teach their classes with innovation and effectiveness.

**2. Requirements (problem)**

Based on the problems of our project, we have derived functional, non-functional, and security requirements for our project.

*Functional Requirements:*

**Critical:**

* The system will

**Recommended:**

* The system will

**Suggested:**

* The system will

*Non-functional Requirements:*

* The system should

*Security Requirements:*

* The system should

*Design Constraints:*

* System must be web-based.
* System must be available to the Latin American market.

**3. Use-Cases (problem → solution)**

Use case diagram here

**4. Activity Diagram (solution)**

**5. Conceptual Model (problem → solution)**

**6. Technologies Used (solution)**

*Languages:*

*Framework:*

**7. System Architecture (solution)**

-put the architectural diagram here

**8. Design Rationale (solution)**

Our rationale…Focus on everything, not just technology

**9. Test Plan, Experimental Results**

To test our implementation…

**10. Risk Analysis**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Risk | Consequences | Probability | Severity | Impact | Mitigation Strategies |
| Insufficient understand of tech |  |  |  |  | Lower probability and/or severity of risk |
| Compatibility/interface |  |  |  |  |  |
| Platform issues |  |  |  |  |  |
| Change in rules/regulations |  |  |  |  |  |
| Misunderstood requirements |  |  |  |  | Regular meetings with our client. Design system in modular way. |
| Human testing |  |  |  |  |  |
| Time |  |  |  |  | Cut features |

**11. Development Timeline**

Gantt chart, split up by quarter

**12. References**