User (abstract)

Variables:

- Id
- name
- email
- password

Methods:

- void logout();
- void login();
- · getter and setter

Admin(inherits from User)

Variables:

NOTHING

Methods:

- Call all services
- Payment(Student s)

Student (inherits from User)

Variables:

- ArrayList<Course> enrolledCourses
- ArrayList<Certificate> earnedCertificates

Methods:

- enroll_course();
- earn_certificate();
- browse_available_course();
- Do_quiz();
- time_spent();
- finish_lesson();

Instructor (inherits from User)

Variables:

- ArrayList<Course> createCourses
- ArrayList<Certificate> createdCertificates
- ArrayList<quizes> createdquizes
- • ArrayList<Lesson> createdLessons

Methods:

- manage_courses();
- upload_lessons();
- delete_lessons();
- add_quiz();
- delete_quiz();
- generate_certificate();

Course

Variables:

- ArrayList<Quiz> quiz
- ArrayList<Instructor> instructor
- ArrayList< Lessons> lesson
- Certificate
- price

Methods:

· getter and setter

Lesson

Variables:

- lesson_id
- lesson title
- lesson content
- lesson_optional_resource
- lesson_duration

Methods:

• getter and setter

Quiz

Variables:

- quiz_id
- number_questions
- course_name
- passing_score
- name
- quiz_duration

Methods:

• getter and setter

***ALL Service DEAL WITH DATABSE(JSON) ***

UserService

Variables: NOTHING

Methods:

- add instructors(Instructor i) && update && delete
- add_student(Student s) && update && delete

CourseService

Variables: NOTHING

Methods:

• add courses(Course c) && update && delete

QuizService

Methods:

add_quiz(Quiz q) && update && delete

JsonDatabaseManager

Variables: NOTHING

Methods:

- add_courses(Course c) && update && delete to courses.txt
- add_instructors(Instructor i) && update && delete to user.txt
- add student(Student s) && update && delete to user.txt
- add quizes(Quiz q) && update && delete to quiz.txt
- add lessons(Lesson I) && update && delete to lesson.txt