RMIT
UNIVERSITY
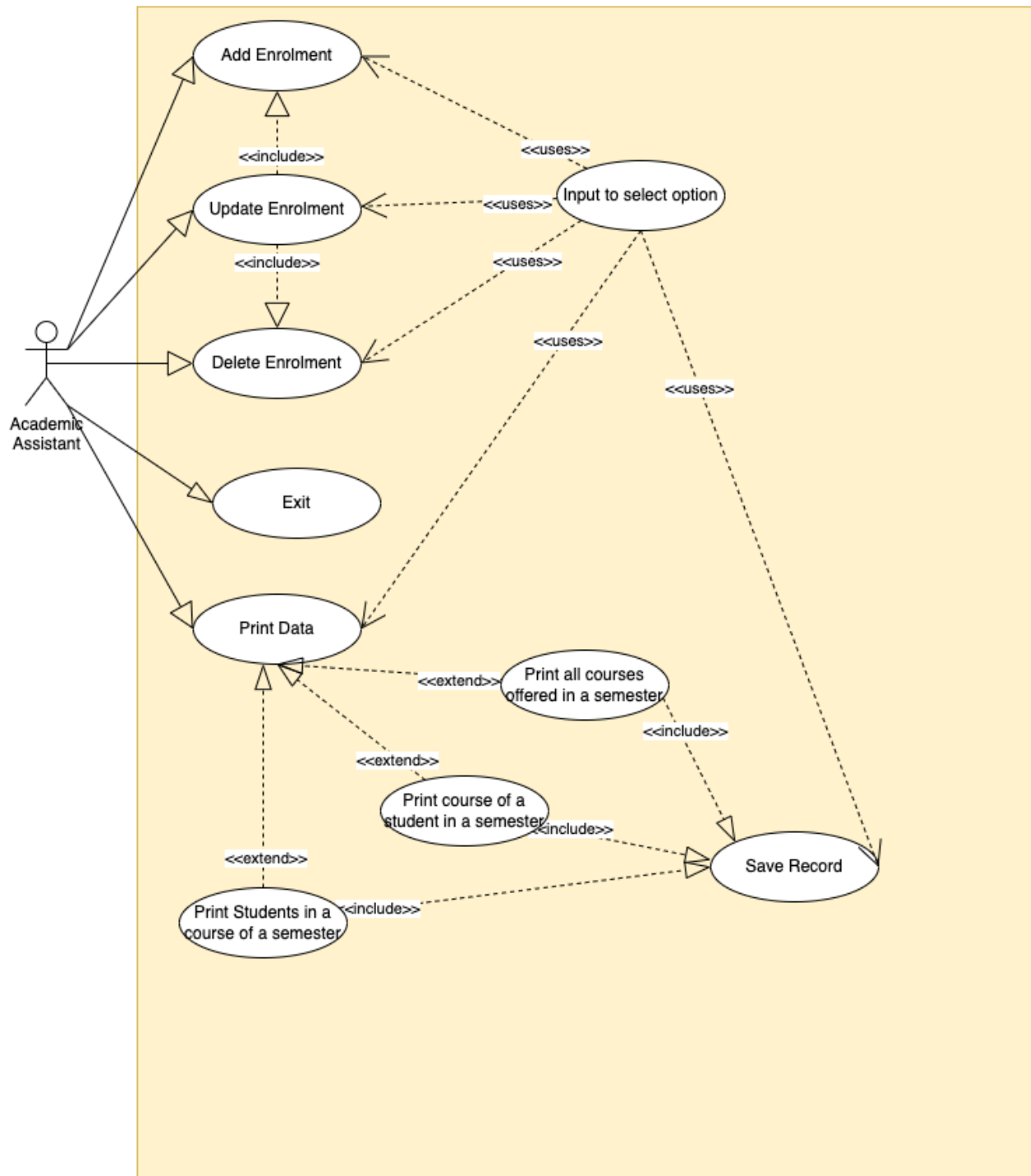
Further Programming

Assignment 1-Report

Author:
Tran Nguyen Anh Khoa- S3863956

1. Introduction

The system provides Academic Assistant means to manage student enrollment. With CRUD fully implemented for student enrollment, users can add, update or remove any enrollment with the student and courses provided by the system. For reading methods, users can filter certain information and be able to save the information to CSV files. Program has also been tested with 100% coverage.
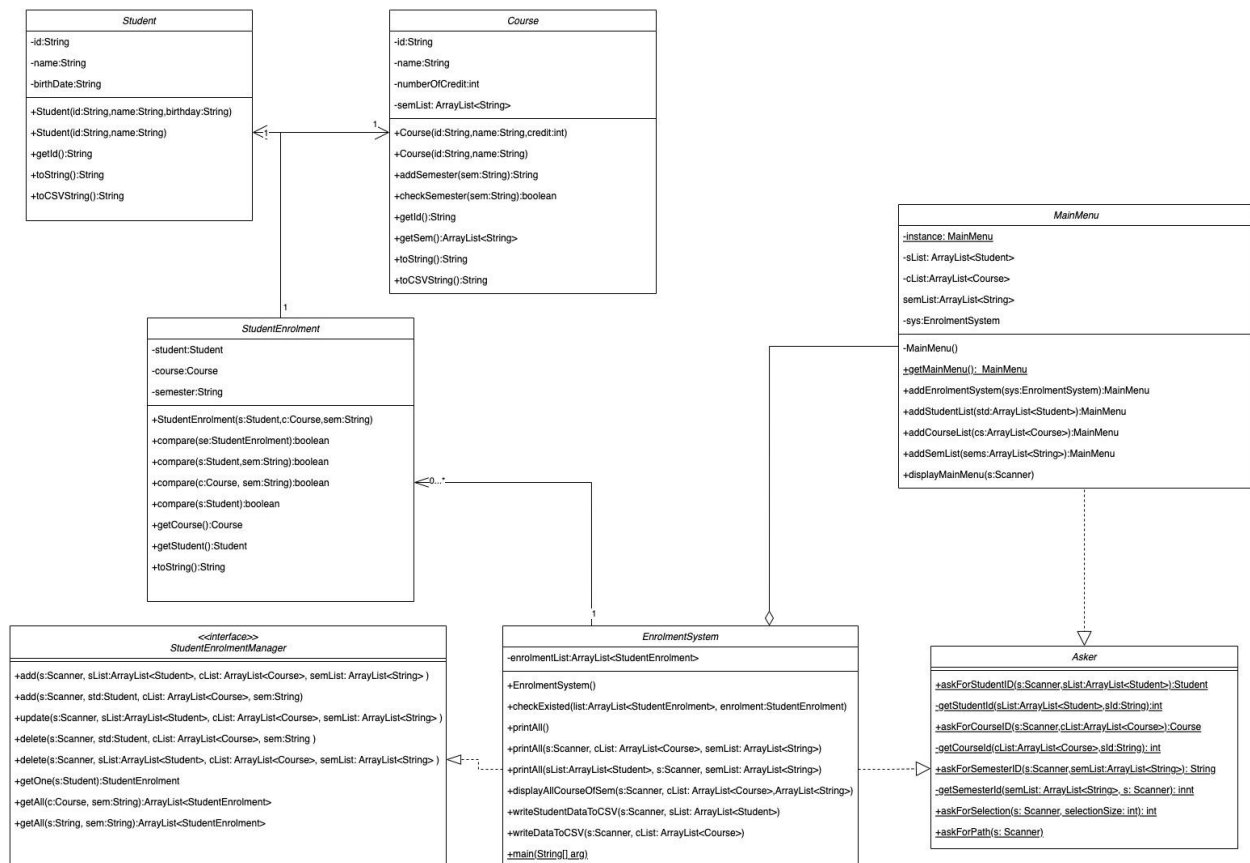
2. Use case description

Only one actor, Academic assistant, is involved in the enrollment system. The actor has 5 direct use cases, add, update, delete enrollment, reading methods and exit the program. For print data, users can select to print all students in a course of a

semester, print all courses of a student in a semester and print all courses that are offered in a certain semester. All printing methods will ask actors to save the records into CSV files. Add, Update, Delete, Print and Save Records will share the use of input.

3. Class Diagram

Student, Course and StudentEnrolment are 3 basic class objects, they have attributes according to the topic. However, for the class Course, I added an array of String to record semesters when the course is available.

EnrolmentSystem will be the class that keeps all the enrolment, and it is implemented by StudentEnrolmentManager interface. The interface methods directly manage the list and make all changes to the enrolment list. EnrolmentSystem has methods on its own, however, they are for reading purposes, including printing to the console or saving records to CSV.

Main menu is a singleton class that also has the builder pattern to set up its property. Main menu provides options for users. After starting the program or finishing an action, the menu will be displayed. Users can exit the program via this menu.

Asker class has no variable, its functionality is to receive and validate users' input.

Main method is implemented in the EnrolmentSystem class.