CISP 1020

Group 1

Hanadi Mohamed

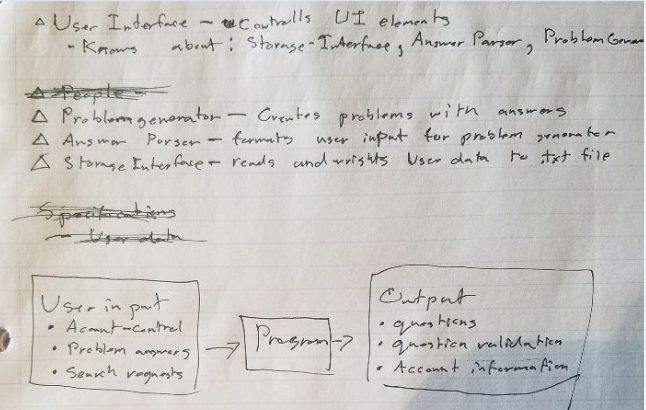
3/31/2018

Requirements specification:

We need to develop a program that:

* Features a user login that takes in a unique username as input.
* Features a new user wizard that allows new users to create an account that comes with role-specific features, whether student, teacher, or parent.
* Each role will have its own menu in the application.
* From the teacher menu, teachers will be able to search, sort, and list his/her students’ by name, score, or grade-level and have access to those students’ names, scores, and grade-levels. The teacher will also need the ability to specify the number of students he/she wants to supervise.
* From the student menu, students will be able to take grade-level specific quizzes with dynamically generated questions, including subtraction, addition, multiplication, and division, with feedback at the end. The student will also need the ability to specify his/her grade level to determine the difficulty of the problems generated.
* From the parent menu, parents will be able to access their students’ scores.
* The program will need to write the quiz results from the students to a text file to be read later.

Analysis process:



Design process:

Discovering classes:

Possible classes from specification:

User, Input, Wizard, Account, Teacher, Parent, Student, Role, Menu, Application, TeacherMenu, Name, Score, GradeLevel, StudentMenu, Quiz, QuestionGenerator, Feedback, ParentMenu, QuizWriter, QuizReader.

After deliberation we reduced this list too:

User, Teacher, Parent, Student, Menu, TeacherMenu, StudentMenu, Quiz, QuestionGenerator, ParentMenu.

We later added some additional classes:

StorageInterface, AnswerParser, LoginMenu, WizardMenu, Message.

Implementation process:

Testing process: