Project Design - 1st half

Part I. Reason for Choosing the Project

The project we decided to work on was a task organizer/schedule. It will help students manage their time for academics and other endeavors. We chose this project out of the others for a few reasons. The first reason was because it was the most simple project proposal out of everyone from the group. The second reason was because it was the most in-depth in terms of planning out its functions. The member who created it has also already worked on some CRC cards and a short UML diagram based on it for a previous exercise.

Part II. CRC Cards and 3 Scenarios

Abstract		
Task		
	SchoolReqs, Extracurriculars	
 Has a name Has a deadline isFinished = false inProgress (boolean) Has a description (optional) Has importance totalTime (integer) Can be marked as done (with markDone(task) - sets isFinished to true) Can be assigned to a student 	 Student Subject Section SchoolReqs Extracurriculars 	

Extracurriculars		Task
 Has difficulty (integer) Has type of club/organization (string) Has name of club/organization (string) addsToGrade (boolean) 	• Task	

SchoolReqs		Task
 Has type of activity (string) Has a subject (string) isRequired (boolean) isIndiv (boolean) 	• Task	

Teacher	
 Has a name (String) Has a specialization (Subject) Has an ArrayList section (Sections, TeacherList) Can assign tasks to students 	TaskSectionStudentSubject

Subject	
 Has a subName (string) Has a unit (float) Has SubjTeachers (ArrayList<teacher>)</teacher> Can categorize the tasks 	SchoolReqsTeacher

Student		
 Has a name Has a TaskList (ArrayList<task>)</task> Has AppUsers (ArrayList<student>)</student> Can generate a tas[k list and number of tasks Can sort tasks by deadline and subject 	TeacherSectionTask	

Section Has a name Has students (ArrayList) Has list of sections (ArrayList) Can add a student Can be given tasks by a teacher

wiseWords

- Has 3 categories with pre-set quotes for each
- burnOut: ["Get some sleep", "Don't burn the midnight oil", "take a break"] (array)
- unsatisfied: ["Better luck next time", "move forward", "no one is perfect"] (array)
- failedAssessment: ["One assessment won't be the end of you", "Bawi next life", "Move on"] (array)
- Can print motivational quote from specified category [motivate(category)]
- Can add quotes using addWisdom() method

Student

Part III. Scenarios

I: task creation and completion

Scenario A: When user updates task's startTask status

- 1. SchoolRegs is created
- 2. It gets added to User's taskList
- 3. inProgress=false
- 4. Declaring startTask(s) sets inProgress to true
- 5. User completes task markDone(s), isFinished is set to true, inProgress set again to false
- 6. SchoolRegs is removed from the user's TaskList
- 7. A congratulatory message pops up.

Scenario B: When startTask is not declared

- 1. SchoolRegs is created
- 2. It gets added to User's TaskList
- 3. inProgress=false
- 4. When inProgress is checked, it is still false
- 5. User completes task markDone(s), isFinished is set to true, inProgress remains false
- 6. SchoolRegs is removed from the user's TaskList
- 7. A congratulatory message pops up.

Scenario C:

- 1. Extracurriculars is created
- 2. addsToGrade=true
- 3. It gets added to User's TaskList
- 4. inProgress=true
- 5. User completed task markDone(s), isFinished is set to true
- 6. Extracurriculars is removed from the user's TaskList
- 7. A congratulatory message pops up.

II. Self-assigned vs. Teacher-assigned

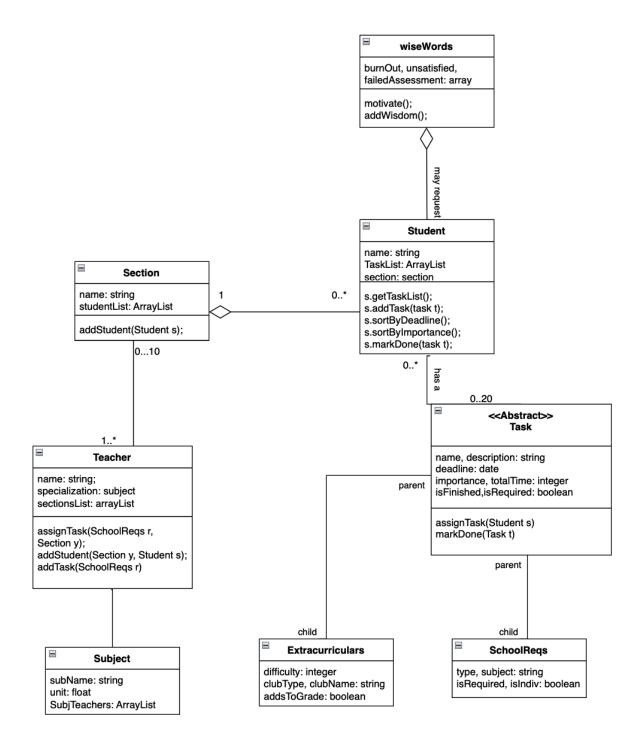
Self-Assigned

- 1. User creates a new task t (may be SchoolReq, Extracurriculars, or Personal) and specifies all the required fields.
- 2. The task is added to the student's List.
- 3. Task is completed with markDone(t)
- 4. Congratulatory message pops up. Removed from student's list.

Teacher-assigned

- 1. Teacher t creates a new task r(can ONLY be a SchoolReq) and specifies the required fields
- 2. Teacher assigns task r to sections
- 3. Users in the sections get notified
- 4. Tasks get added to users' lists
- 5. User completes task
- 6. Congratulatory message pops up. Removed from student's list.
- 7. Teacher t gets notified of the student's completion every time a student completes the task

Part IV. UML Diagram



Part V. List of Exceptions

1. InvalidInputException

- a. This exception occurs when the input is invalid for a specific box. It handles an invalid input that does not fall in any of the given categories by highlighting the box in red to emphasize it to the user. This allows them to know which error to correct.
 - i. "The section does not exist"

2. DeadlineInvalidException

- a. This exception occurs when a date that was set is not a valid date. It ensures that the deadline is not a date that has already passed.
 - i. "05/13/2023 is an invalid date!!!"

3. TasksInputException

- a. This exception occurs when the limit number of tasks has been reached. This happens when a student has more than 3 tasks for one subject per day. When this occurs, there will be a **pop-up in red** that indicates that the limit has been reached.
 - i. "The student ___ has exceeded the maximum amount of tasks in the subject ___ on the date __!"

4. ExtracurricularLimitException

- a. This exception occurs when the limit to the number of extracurricular activities a student can participate in has exceeded. A student is limited to 3 extracurriculars per elective. When the limit is exceeded, there will be a **pop-up in red** that indicates that the limit has been reached.
 - i. "The student has exceeded the max amount of tasks in the elective!"

Part VI. Initial Design of User Interface

