Sequence Diagram – in class activity

Your professor will complete a class diagram and a sequence diagram for this use case description.

Your task is to complete the prototypes

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User Story

Registration Staff must be able to create classes as needed by the business. For example, the owners of Pro TKD are thinking about expanding into the Parkour marketplace and will have to create classes for different age ranges and skill levels.

Acceptance Criteria:

1. Must be able to query classes by age range and skill levels
2. Must be able to schedule the classes is 0.5 increments.

Use Case Descriptions

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case Name | Create a class | | |
| Triggering Event | Demand for a new class | | |
| Brief Description | Allows the Registration Staff to create a new class | | |
| Actors | Registration Staff | | |
| Related Use Cases |  | | |
| Preconditions | Registration Staff has opened the class and schedule menu | | |
| Post Conditions | Class is created and ready to schedule | | |
| Flow of activities | Actor | | System |
|  |  | Selects the Class Menu | Displays a list of classes including Class identifier, class name and the date the class was last run.  System prompts to add a class |
|  |  | Requests to add a class | Displays a class entry form, prompting for class name, class description, length of class in 0.5 hour increments, suggested age range and skill level. Displays a list of age ranges and skill levels |
|  |  | Enters class name, class description, length of class, selects age range, from a list and skill level from a list | Accepts input  Data Validation:  Class name must be entered  Description must be entered  Length of class must be entered and divisible by 30.  Age range must be selected  Skill level must be selected  Data is valid, unique class identifier is created  Prompts to save the data. |
|  |  | Requests to save | Saves data  Displays a confirmation message |
| Exception Conditions | * Actor chooses to cancel adding the class | | |

A diagram of a level range

Description automatically generated

A diagram of a computer program

Description automatically generated

Public class Class{

Int classID;

String name;

String description;

String dateLastRun;

Int length;

SkillLevel:skillLevel;

AgeRange:ageRange;

}

Public class SkillLevel{

Int skillLevelID;

}

public class AgeRange {

Class class[];

int ageRangeID;

getAgeRange() {

// retrieves an array of age ranges

}

}

public class EntityManager() {

get(classname, select criteria) // retrieves objects

persist(object) // saves objects

}

public class DomainController {

getClasses() // sends request to retrieve classes to the entity manager

getAgeRangeSkillLevels() // sends request to get age ranges and skill levels to the entity manager

createClass() // instantiates a class object

generateClassID() // calculates a class id

save() // sends request to save to the entity manager

}

Public UIController {

SelectMenu() // selects menu

addClass() // add class

enterClass()// enter class name, description, length,ageRangeID, skillLevelID

save() // sends request to save to the domain controller

}