

[**Instructions:** Remove everything that is not a heading below and fill in with your own diagrams, etc.]

1. Brief introduction __/3

My feature is a skill tree/leveling system. In game the player will collect experience points when defeating enemies. These experience points will be used as a sort of “currency” for which the player can acquire upgrades for their character relating to aspects such as health, damage, defense, or even new additions to the player character’s moveset or upgrades to existing moves. As mentioned, experience points will function like currency, and as such if the player does not have enough to earn a skill or upgrade, they will be unable to. Additionally, my skill tree will follow a common approach to skill trees, that is to make upgrades available once their predecessor has been obtained. Lastly, the skill tree will be a subset of the pause menu, available when the player pauses the game, and navigates to the skill tree.

2. Use case diagram with scenario __14

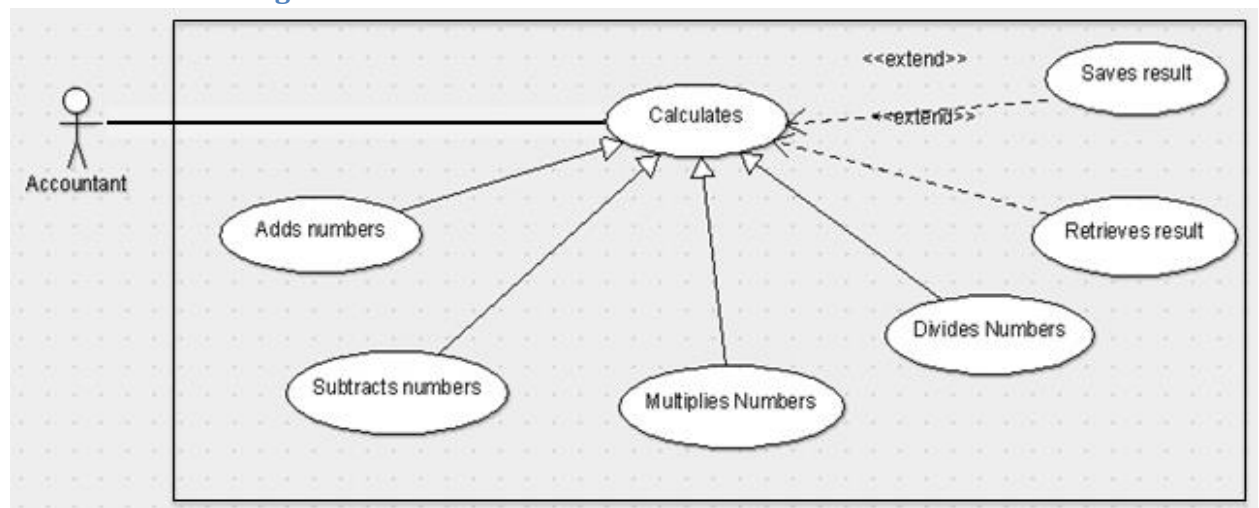
[Use the lecture notes in class.

Ensure you have at least one exception case, and that the <<extend>> matches up with the Exceptions in your scenario, and the Exception step matches your Basic Sequence step.

Also include an <<include>> that is a suitable candidate for dynamic binding]

Example:

Use Case Diagrams



Scenarios

[You will need a scenario for each use case]

Name: Add Numbers

Summary: The accountant uses the machine to calculate the sum of two numbers.

Actors: Accountant.

Preconditions: Calculator has been initialized.

Basic sequence:

Step 1: Accept input of first number.

Step 2: Continue to accept numbers until [calculate] is entered.

Step 3: Accept calculate command.

Step 4: Calculate and show result.

Exceptions:

Step 1: [calculate] is pressed before any input: Display 0.

Step 2: A button other than [calculate] or a number input is pressed: ignore input.

Post conditions: Calculated value is displayed.

Priority: 2*

ID: C01

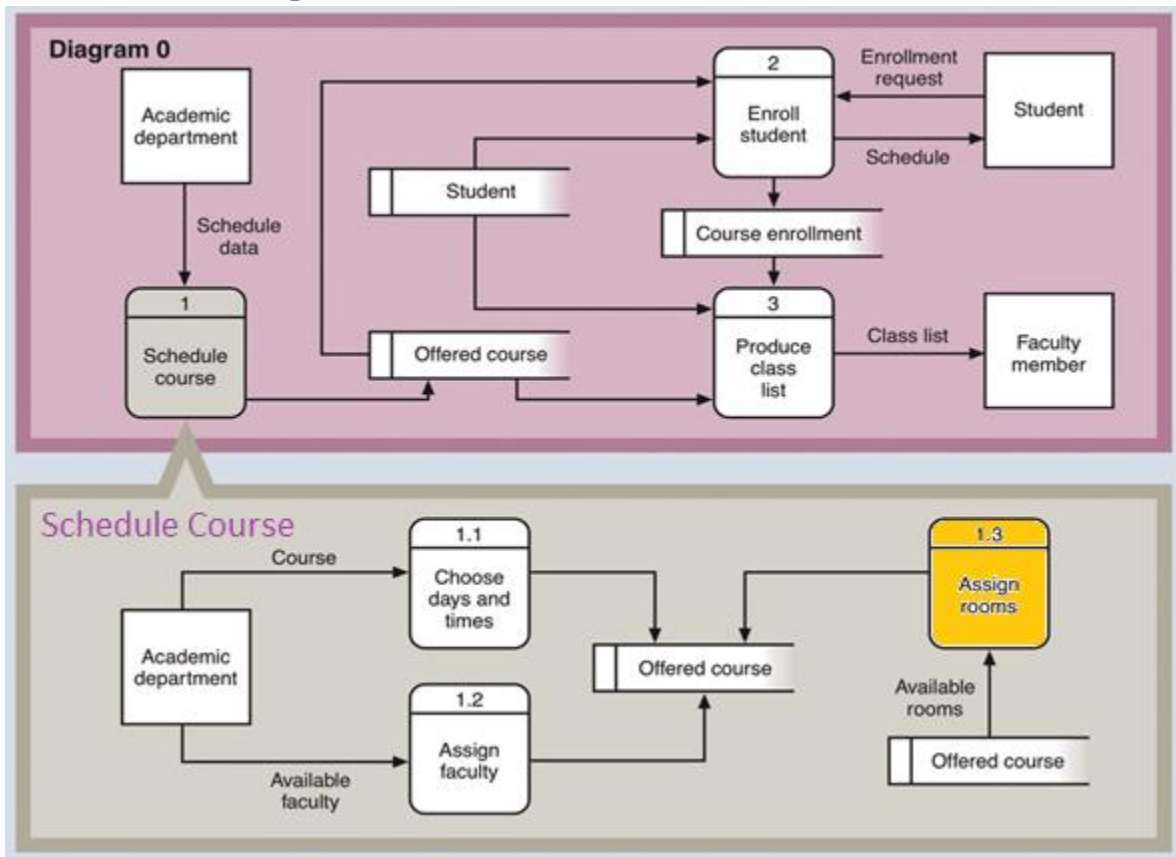
*The priorities are 1 = must have, 2 = essential, 3 = nice to have.

3. Data Flow diagram(s) from Level 0 to process description for your feature ____14

[Get the Level 0 from your team. Highlight the path to your feature]

Example:

Data Flow Diagrams



Process Descriptions

Assign rooms*:

WHILE teacher in two places at once OR two classes in the same room

Randomly redistribute classes

END WHILE

***Notes:** Yours should be much longer. You could use a decision tree or decision table instead if it is more appropriate.

4. Acceptance Tests _____9

[Describe the inputs and outputs of the tests you will run. Ensure you cover all the boundary cases.]

Example for random number generator feature

Run feature 1000 times sending output to a file.

The output file will have the following characteristics:

- Max number: 9
- Min number: 0
- Each digit between 0 and 9 appears at least 50 times

- No digit between 0 and 9 appears more than 300 times
- Consider each set of 10 consecutive outputs as a substring of the entire output.
No substring may appear more than 3 times.

Test Ideas for Skill Tree

Run feature 1000 times sending output to a file.

The output file will have the following characteristics:

- Max number: 9
- Min number: 0
- Each digit between 0 and 9 appears at least 50 times
- No digit between 0 and 9 appears more than 300 times
- Consider each set of 10 consecutive outputs as a substring of the entire output.
No substring may appear more than 3 times.

Example for divide feature

| Output | Numerator (int) | Denominator (int) | Notes |
|--------|-----------------|-------------------|---|
| 0.5 | 1 | 2 | |
| 0.5 | 2 | 3 | We only have 1 bit precision for outputs. Round all values to the nearest .5 |
| 0.0 | 1 | 4 | At the 0.25 mark always round to the nearest whole integer |
| 1.0 | 3 | 4 | At the 0.75 mark always round to the nearest whole integer |
| 255.5 | 5 | 0 | On divide by 0, do not flag an error. Simply return our MAX_VAL which is 255.5. |

5. Timeline ____/10

[Figure out the tasks required to complete your feature]

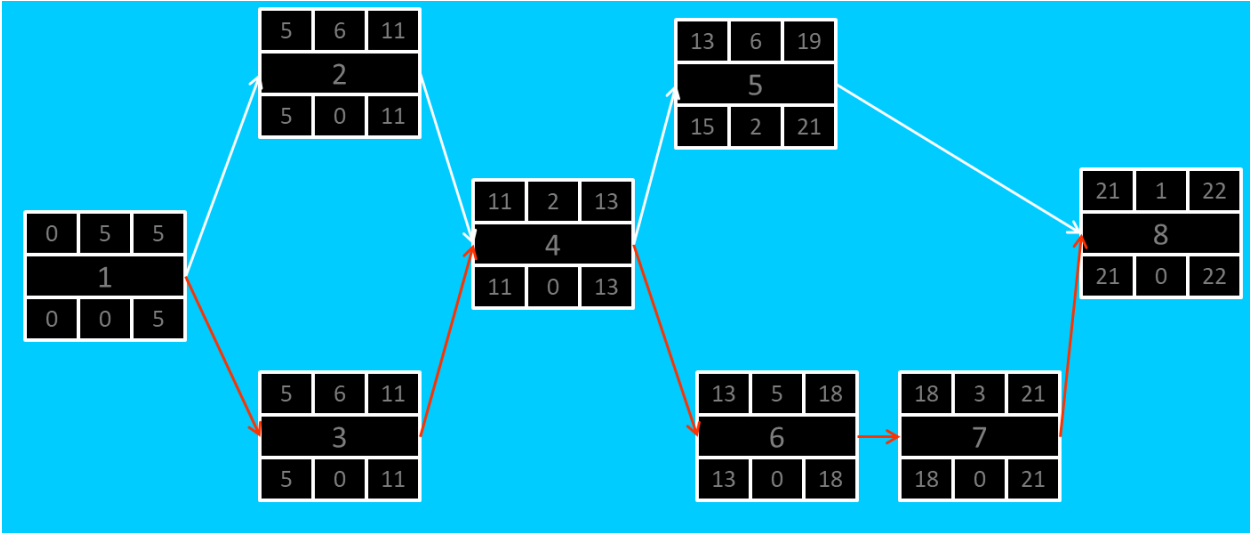
Example:

Work items

| Task | Duration (PWks) | Predecessor Task(s) |
|----------------------------|-----------------|---------------------|
| 1. Requirements Collection | 5 | - |
| 2. Screen Design | 6 | 1 |
| 3. Report Design | 6 | 1 |

| | | |
|--------------------------|---|------|
| 4. Database Construction | 2 | 2, 3 |
| 5. User Documentation | 6 | 4 |
| 6. Programming | 5 | 4 |
| 7. Testing | 3 | 6 |
| 8. Installation | 1 | 5, 7 |

Pert diagram



Gantt timeline

