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

## 1. Brief introduction \_/3

For our game Bee Brawler: Exit the Hive, I am in charge of developing all of the general enemies the player will encounter (minus bosses and elites). There will be lots of enemy types, considering this a rouge-like game, where enemies and combat are some of the integral aspects of the game.

#### 2. Use case diagram with scenario \_14

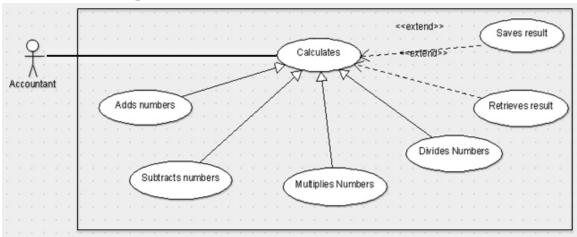
[Use the lecture notes in class.

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.

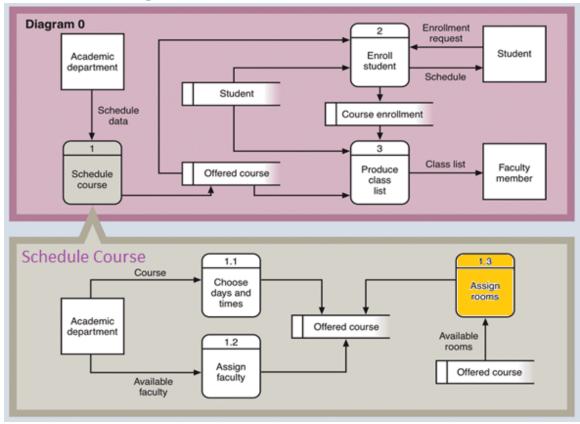
Priority: 2\* ID: C01

# 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** 

<sup>\*</sup>The priorities are 1 = must have, 2 = essential, 3 = nice to have.

\*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.

#### **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.

<b>5.</b>	Time	line		<b>/1</b>	0
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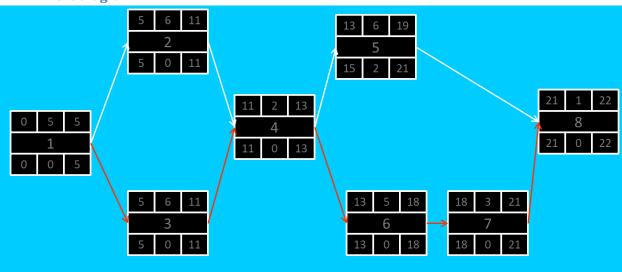
[Figure out the tasks required to complete your feature]

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**

