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Mark _____/50

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

1. Brief introduction __/3

For our game “Dungeon Jump” I will be working on the Overworld NPCs. Our plan for the game is built around an overworld with friendly NPCs and platforming sections with hostile NPCs. I am responsible for the creation of the overworld NPCs and their interactions.

2. Use case diagram with scenario __14

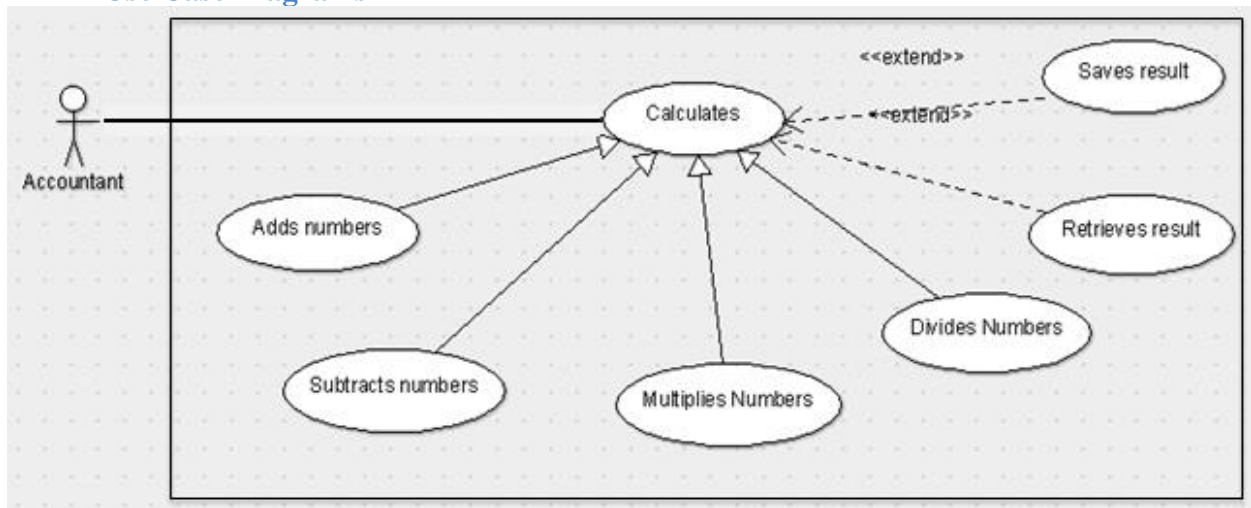
[Use the lecture notes in class.

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.

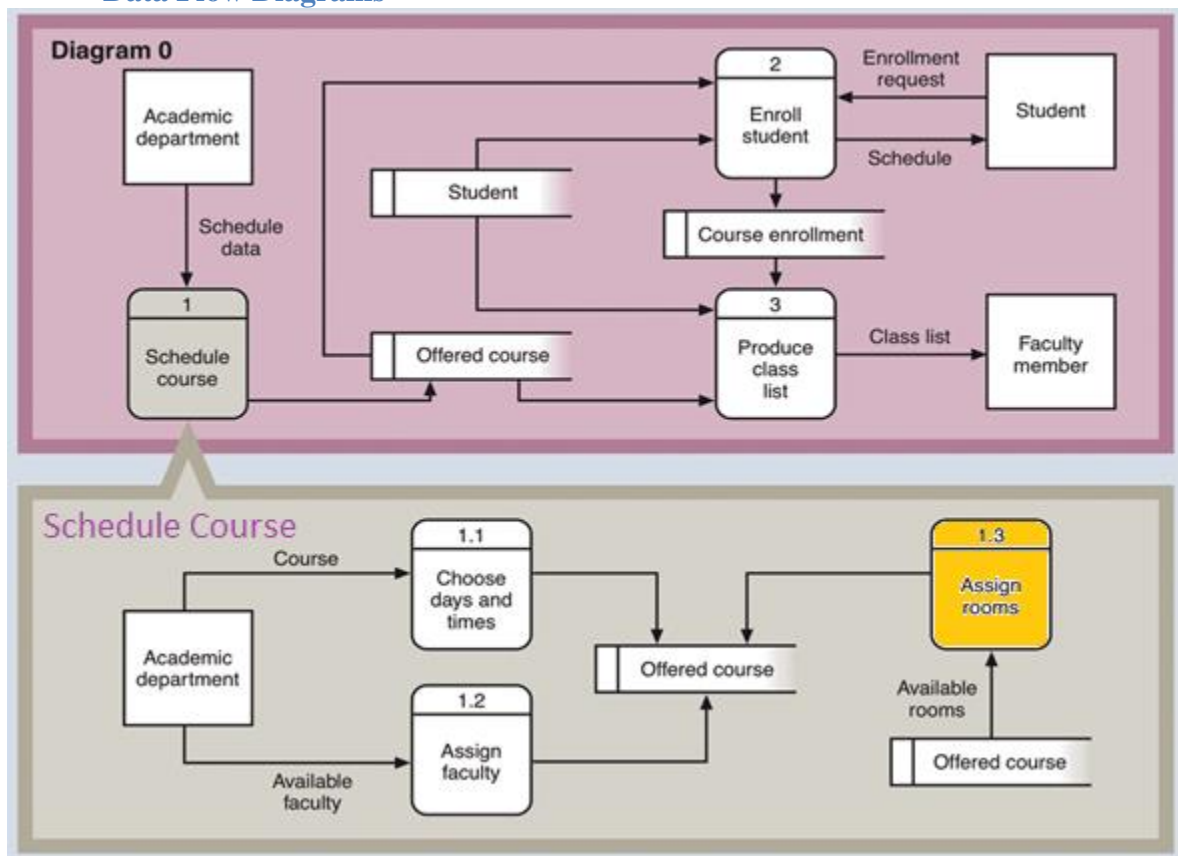
3. Data Flow diagram(s) from Level 0 to process description for your feature

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.

Example for divide feature

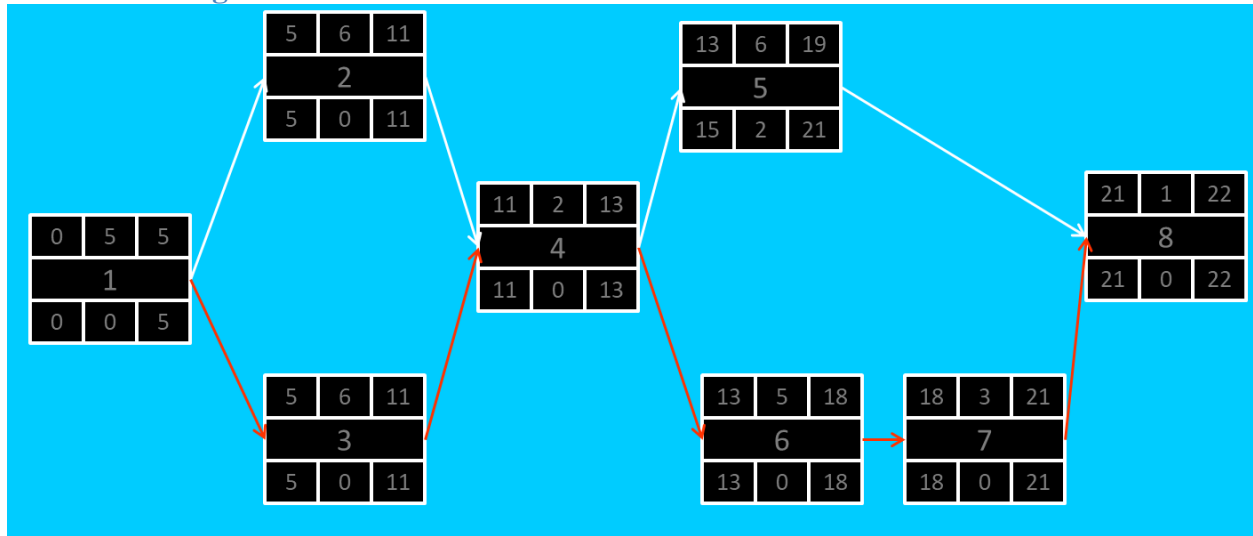
Output	Numerator (int)	Denominator (int)	Notes
0.5	1	2	
0.5	2	3	We only have 1 bit precision for outputs. Round all values to the nearest .5
0.0	1	4	At the 0.25 mark always round to the nearest whole integer
1.0	3	4	At the 0.75 mark always round to the nearest whole integer
255.5	5	0	On divide by 0,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

5. Timeline _____/10

	Tasks	Duration (Hours)	Predecessor Tasks
1	Requirements Collection	4	-
2	NPC Prototype	5	1
3	NPC Statistics	4	2
4	NPC World Interaction	6	3, World Blueprint
5	NPC Player Interaction	8	3, PC Prototype
6	Implement Dynamic NPC Type	2	3
7	NPC NPC Interactions	3	6
8	NPC Task System	5	4, 5
9	Character Design	6	7, 8
10	Implement Character AI	8	9
11	Debug Project Code	13	10
12	Integrate with other Components	15	11

Work items

Pert diagram



Gantt timeline

