

CS-224 Object Oriented Programming and Design Methodologies

Assignment 02

June 7, 2018

1 Guidelines

You need to submit this assignment on **11th of June at 12 pm (Noon)** as the next assignment will be given on the same day. Some important guidelines about the assignment are as following:

- You need to do all the assignments alone
- If a TA has not been assigned to you, get one assigned
- You will submit your assignment to the TA
- You can ask the TA for help, but not for solution. They will guide you towards the answer but not give you the answer.
- You need to follow the best programming practices as given in the accompanying document. Failure in doing so will have your marks deducted
- Submit assignment on time; late submissions will not be accepted
- Some assignments will require you to submit multiple files. Always Zip and send them
- It is better to submit incomplete assignment than none at all.
- It is better to submit the work that you have done yourself than what you have plagiarized.
- It is strongly advised that you start working on the assignment the day you get it. Assignments WILL take time.

- Every assignment you submit should be a single zipped file containing all the other files. Suppose your name is John Doe and your id is 0022 so the name of the submitted file should be JohnDoe0022.zip
- DO NOT send your assignment to your instructor, if you do I will just mark your assignment as ZERO for not following clear instructions.
- You can be called in for Viva for any assignment that you submit

2 Task

For this assignment, you will be creating a text based adventure game. The scenario is that a young man Rastan was on his way to Persia from Delhi before he got separated from his caravan. Armed only with a dagger, Rastan has nowhere to go except to move forward. But his path is laden with awards and mischief. He does not know what he will encounter across the next corner. After a good nights rest, he chooses to move forward and brace himself for the things to come.

The rules of this game are as following:

Every turn, Rastan will either choose to move forward or give up. Every turn means 1 day If he gives up, then he will die of any one of these causes:

1. Death by starvation
2. Death by disease
3. Death by dehydration
4. Death by avada kadavera
5. Death by snake bite

If he chooses to move forward, he will consume food for one day and any one of these things can happen

1. He comes across food and water and replenishes his supplies for 5 more turns
2. He comes across a hidden chest that contains a weapon or arrows
3. He comes across a 3 bandits
4. He comes across a healer who heals him.

5. He comes across caravan

- If he comes across a chest and gets a bow or arrows, he cannot use one without the other. The number of arrows can range from 5 to 10
- He can only use bow and arrow if the arrows remain more than 0
- If he has no new weapon, he will use a dagger by default; otherwise a new weapon will replace the dagger. Only bow will be used if arrows have been found. Every new weapon will replace the old one
- The hit chance of the dagger is 40% only, otherwise he will miss
- The hit chance of any other weapon is 75%
- The enemies have a hit chance of 35%
- Whenever an enemy hits Rastan, he loses 1 health
- Every enemy gets killed if Rastan hits him once
- Rastan will die if his health becomes 0 or less. His total health is 20.
- If Rastan finds a healer, the healer will make his health 20 again.
- If Rastan finds bandits, he will do his turn once for every enemy and then all the bandits will do their turns once against Rastan.
- If Rastan finds the tracks 6 times, he will reach Persia and the game will end
- Rastan will begin with food supplies for 10 days. If the food supplies run out, he will die.
- You should create a separate function that should play out the combat whenever Rastan encounters enemies