

[REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]

Dungeon-Based RPG

- The Game
- The Encounters
- The Special Encounters
- The Characters
- The Player Character
- The Battle
- Stats
- Items
- Submission

The Game

In this game the player must move through the dungeon and defeat the Boss Dragon at the end.

Create the dungeon by filling a 10 length array with random values from 0 to 8:

- This will determine the encounters.
- The last position of the array shouldn't be random, you can instead assign the value 99 to it (to represent the Boss).
- The middle position of the array should have the value 50 assigned to it (to represent the Healing Spot).

The player can choose to keep moving into the dungeon by pressing 'y' or quitting the game altogether by pressing 'q'.

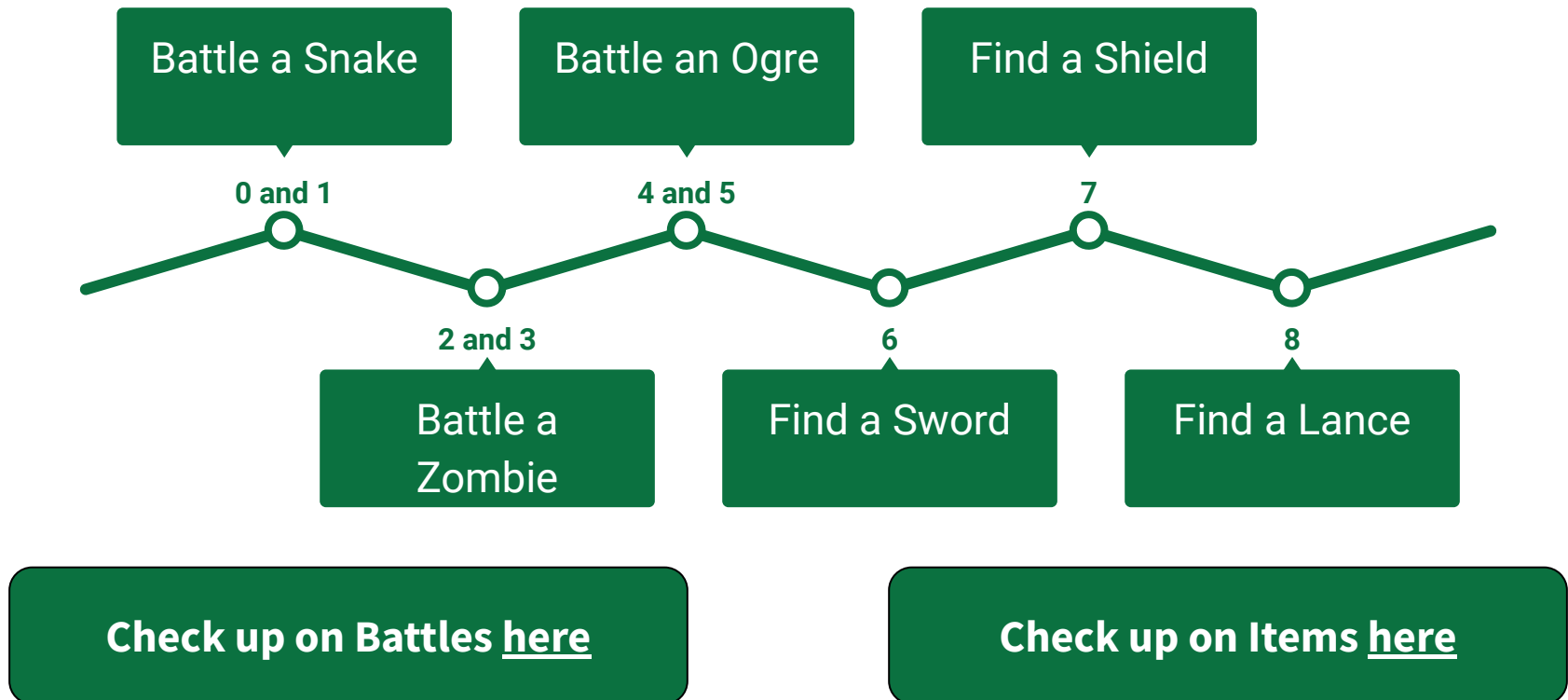
Moving into the dungeon moves the player one position further into the dungeon array.

- When the player reaches the end of the array, they battle the Dragon.

Each time you move a position (an index) further into the array, you must face the assigned encounter at that position.

The Encounters

Check the value at the player position in the dungeon array and when it matches one of the below values, start the corresponding encounter:



The Special Encounters

The Healing Spot

- Place this encounter at the middle of the dungeon.
- Heal the player back to full health when they reach this encounter.
- You can use the number 50 to represent this encounter.

The Dragon (Boss)

- The last encounter of the game.
- When the player defeats this encounter, they win the game.
- You can use the number 99 to represent this encounter.

The Characters

The characters must have a name, hp, defense and attack (which includes minimum attack and maximum attack values).

A character must be able to take damage and to deal damage.

Dealing Damage:

- Get a random value between min. attack and max. attack values.

Taking Damage:

- Subtract from its hp the value of damage being dealt subtracted by the character defense.
- If the character takes lethal damage, you must print a message to the console explaining they perished.

The Player Character

The Player Character can do everything a Character does but can also:

- Equip and Unequip items (only one item equipped at the same time).
- The Player Character levels up each time they defeat an enemy.
 - Start at level 1 and can go up to level 3.
- When you level up your attack values get bumped by 1 as well as the defense value.

The Battle

- Battles happen between the player character and an enemy character.
- The participants take turns damaging each other.
- The player damages the enemy before the enemy damages the player.
- If the enemy dies, end the combat.
- If the player dies, close the application.
- Keep track of the current turn in the battle by keeping a turn counter and printing it to the player each round.

Stats: Player Character

20	Health Points
3	Defence
5	Min. Attack
10	Max. Attack
1-3	Level



Stats: Snake (enemy)

11	Health Points
0	Defence
2	Min. Attack
6	Max. Attack



Stats: Zombie (enemy)

15	Health Points
1	Defence
4	Min. Attack
7	Max. Attack



Stats: Ogre (enemy)

20	Health Points
2	Defence
5	Min. Attack
9	Max. Attack



Stats: Dragon (boss)

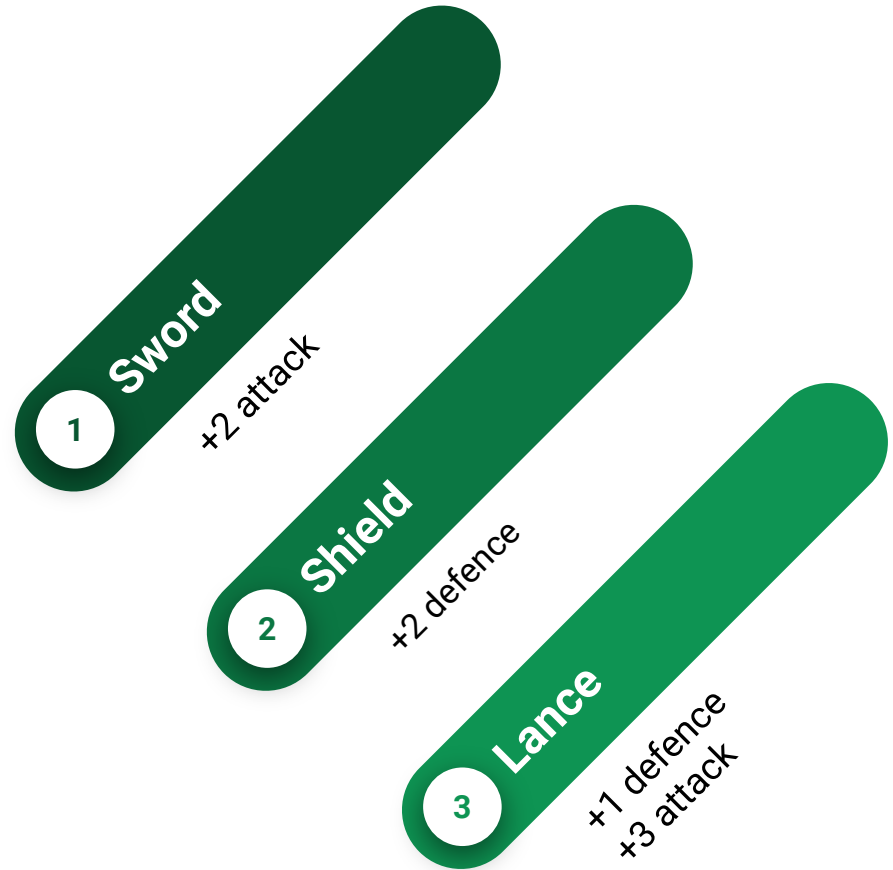
25	Health Points
3	Defence
6	Min. Attack
11	Max. Attack



Items

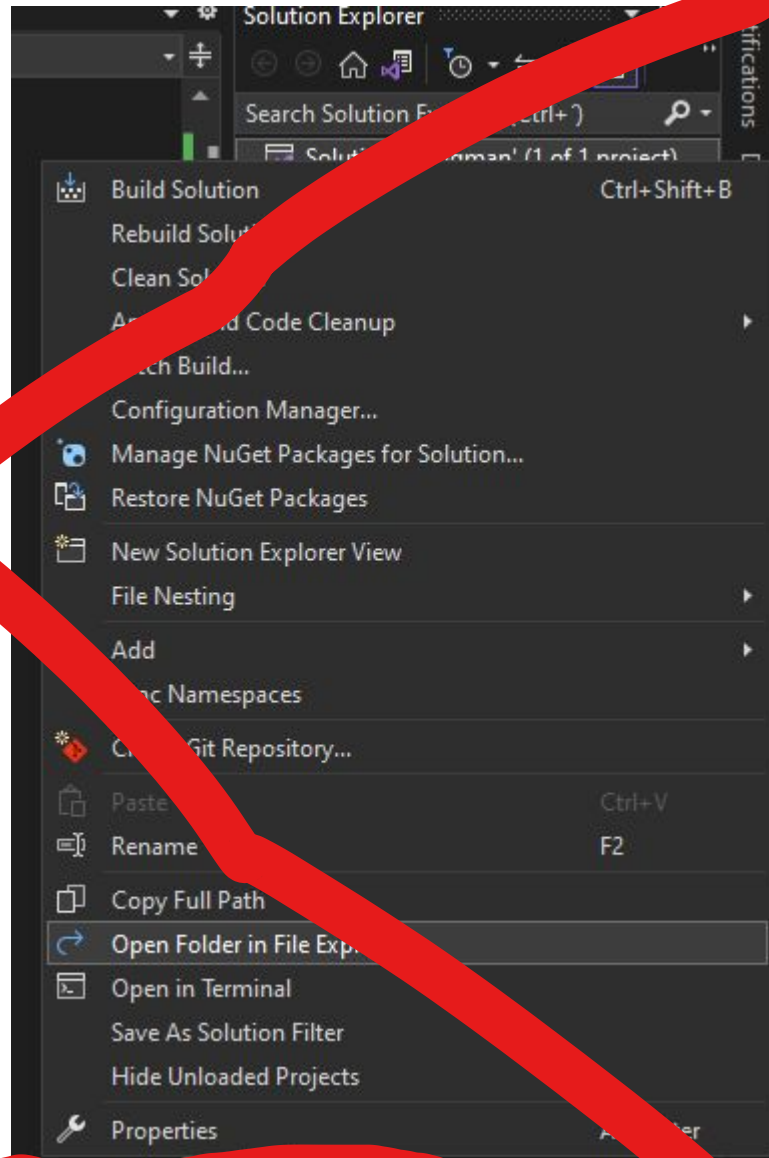
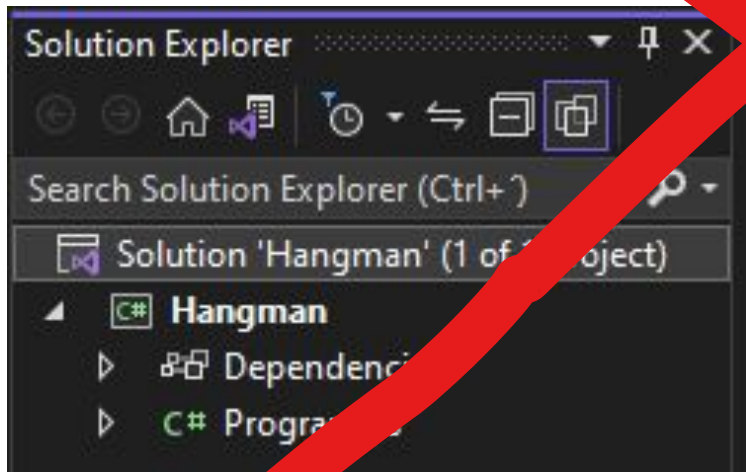
- Items can be equipped by the player when found.
 - You can choose to make the equipping optional or not.
 - The player must only have one item equipped, at most.
 - You must force the removal of the previous item when the player equips a new item.

Items – Examples (to use in game)



Submission

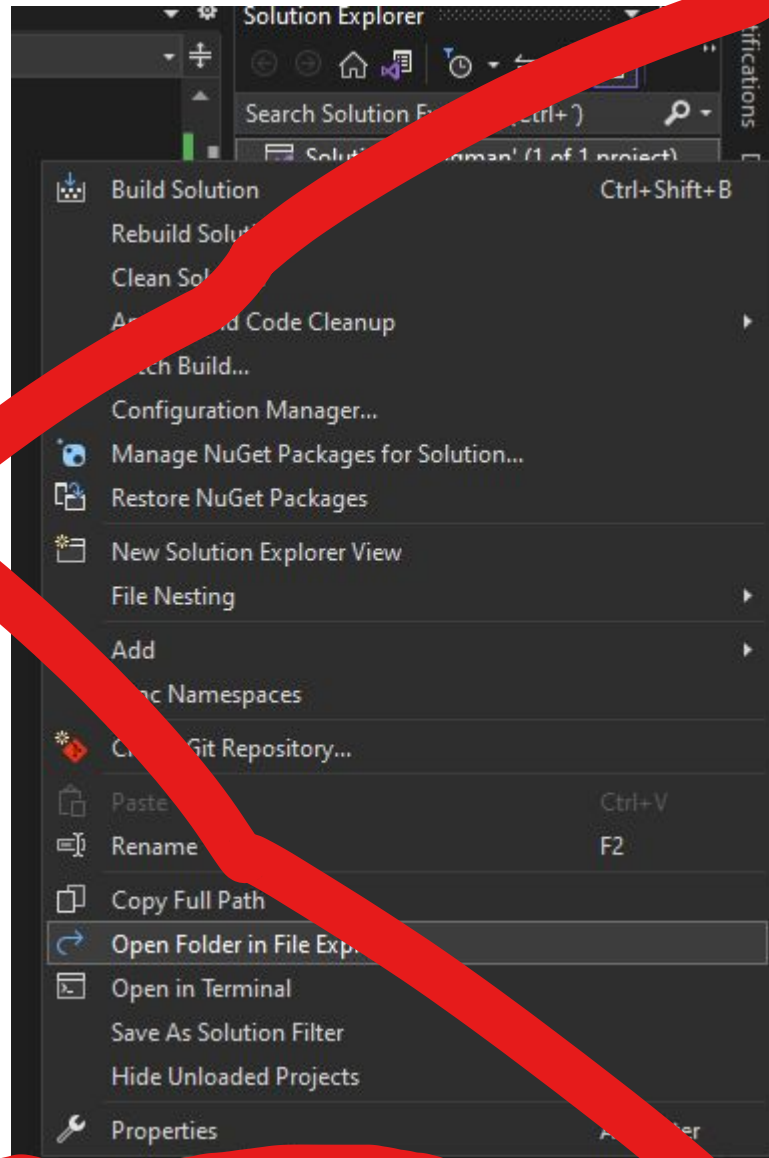
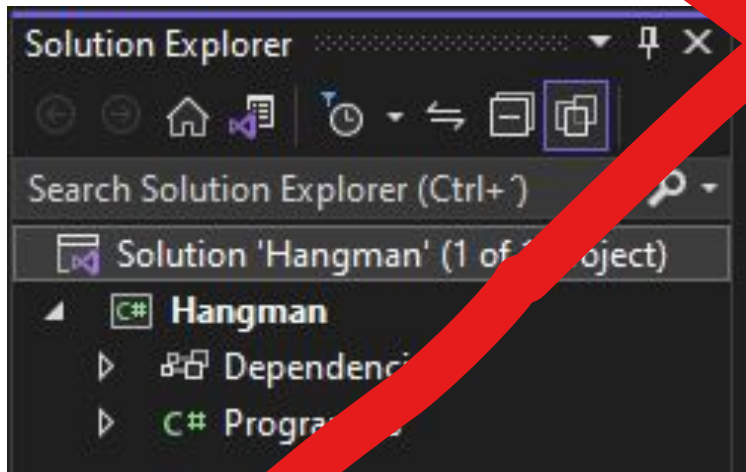
To submit the assignment, right-click on the Solution in the Solution Explorer and click on Open File in File Explorer:



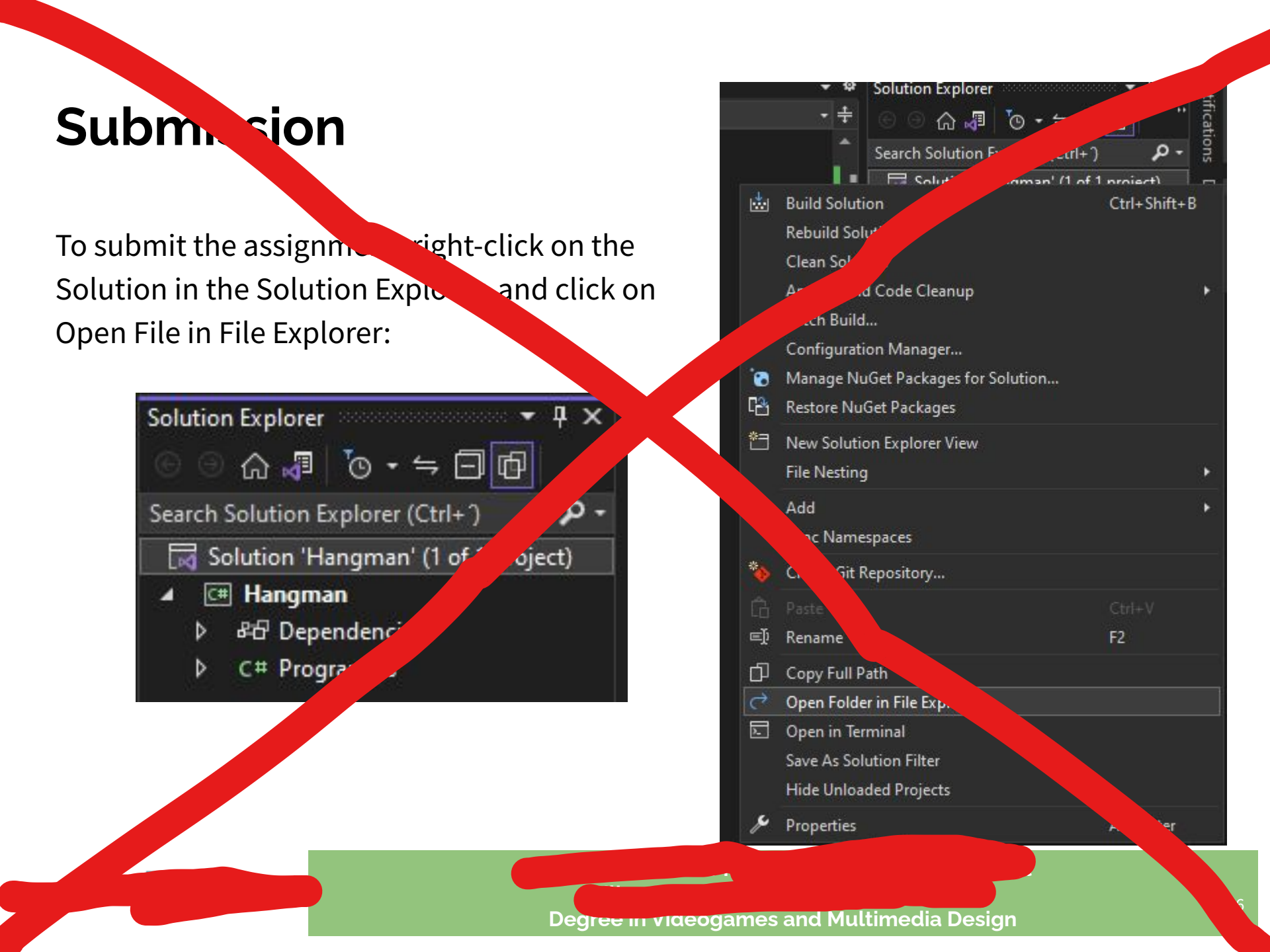
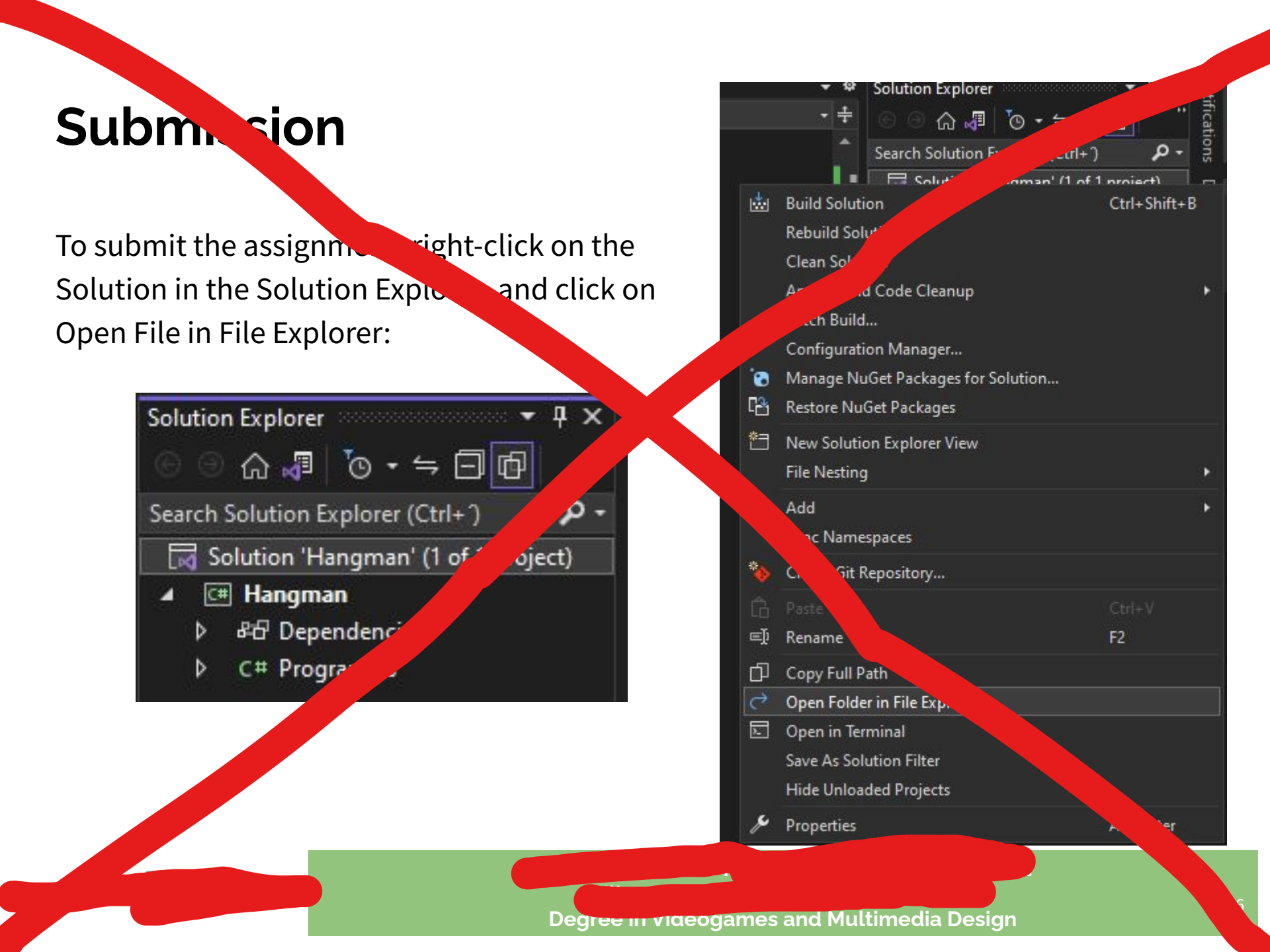
Degree in videogames and Multimedia Design

Submission

To submit the assignment, right-click on the Solution in the Solution Explorer and click on Open File in File Explorer:

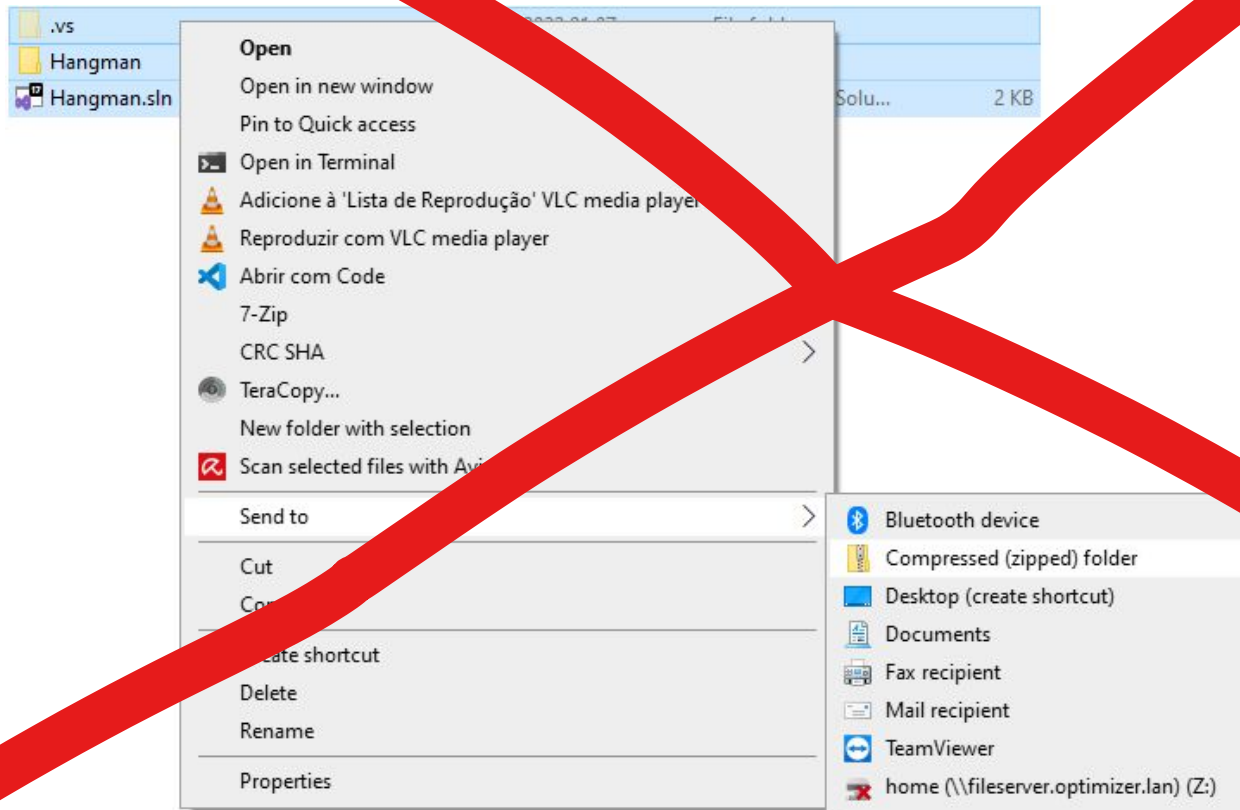


Degree in videogames and Multimedia Design



Submission

In the folder the computer will open, select all files and folders, right-click and select the option Send to > Compressed (zipped) folder:



Submission

Name the new file created <StudentNr>.zip (i.e.: a22001234.zip).

 a22001234.zip

Submit the .zip fiin the designated submission box in Moodle.

Good Luck

Fundamentals of Programming




Degree in Videogames and Multimedia Design