Part 1 – Creating the classes

Allright, now that we know all of the basic building blocks of an Object (Class), its time to put them in practice.

This is the first part of our Project, the project is called “Magic Destroyers” (feel free to rename it and share the name if you come up with something better! ☺).

We will be making a game, but the focus is not going to be entirely on the game logic, but rather on the architecture of the game.

Preparation and planning is extremely important. Correct and somewhat detailed plan is 50% of your work completed.

As you keep going through the different parts of the project throughout the course, I will give you chunks from my plan that you will use to continue the project.

Feel free to add/modify anything in the project as you see fit. If you don’t break stuff and then spend hours trying to find out how to fix it, or make it better, you will not learn. Its also fun sometimes.

Before you start creating the project, create an entirely new solution within Visual Studio, you will use one solution while going through the course, and another solution specificly for the project, so that we can keep things nice and clean.

Now, as I said, we will start with creating our classes.

Your tasks for this exercise are:

1. Create appropriate namespaces and folders to properly structure your classes and files, according to the given information about the project
2. Create all classes along with their corresponding fields and methods
3. Create a constructor for each of these classes, it can be just one default empty constructor, we will be adding more later in the course

In the game that we are going to create we will have 6 different types of Characters:

- Characters
    - Melee
        - Warrior
        - Knight
        - Assassin
    - Spellcasters
        - Mage
        - Necromancer
        - Druid

That’s why I called the game “Magic Destroyers”, there will be a 3v3 between the Melees and the Spellcasters, the Melees are trying to destroy the Spellcasters.

All of these characters should have the following fields:

- abilityPoints (int)
- faction (string for now, will be changed to something else later)
- healthPoints (int)
- level (int)
- name (string)
- bodyArmor (Specific Armor type (new class needs to be created, keep reading))
- weapon (Specific Weapon type, keep reading)

Hint: *You can hold on creating Properties until you learn more about them in the Properties section of the course, so that you don't have to redo something.*

All of the characters will have 3 abilities, 2 offensive and 1 defensive:

- Warrior
    - Strike
    - Execute
    - SkinHarden
- Knight
    - HolyBlow
    - PurifySoul
    - RighteousWings
- Assassin
    - Raze
    - BleedToDeath
    - Survival
- Mage
    - ArcaneWrath
    - Firewall
    - Meditation
- Necromancer
    - ShadowRage
    - VampireTouch
    - BoneShield
- Druid
    - Moonfire
    - Starburst
    - OneWithTheNature

Feel free to change these abilities to your preferences, I am just giving you examples, you don't need to stick with my implementation of the characters and their abilities. The important thing here is to simply practice creating classes and their members.

- Equipment
    - Armors
        - Chainlink
        - LightLeatherVest
        - ClothRobe

- Weapons
    - Sword
        - Bloodthirst
    - Axe
        - HackNSlash
    - Hammer
        - Stun
    - Staff
        - Empower

The armors will have a *armorPoints* field, and the weapons will have *damage* field along with the item abilities listed bellow each of the weapons.

You can use these new equipment classes for the armor/weapon types of the characters. For example, the weapon field of a warrior could become *Sword weapon,* Sword type, weapon field name.

Feel free to spread the equipment between the classes as you see fit, I will be doing it like this:

- Warrior
    - Chainlink bodyArmor;
    - Axe weapon;
- Knight
    - Chainlink bodyArmor;
    - Hammer weapon;
- Assassin
    - LightLeatherVest bodyArmor;
    - Sword weapon;
- Mage
    - ClothRobe bodyArmor;
    - Staff weapon;
- Necromancer
    - LightLeatherVest bodyArmor;
    - Sword weapon;
- Druid
    - LightLeatherVest bodyArmor;
    - Staff weapon;

I believe that we have enough work to do as it is, once again, feel free to add/remove/modify anything as long as you are still able to practice Class/Object creation along with their details.