**SINGAPORE\_SLING TEAM**



**TEAM MEMBERS**

**Telerik username / Name:**

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**GitHub WebProject URL**:

<https://github.com/micro3x/Heroes_Of_Singapore_Sling/commits/master/HeroesOfSingaporeSling>

**GAMEPLAY**

**(Simple Guide)**

The game is a single player RPG. The game starts with the choosing of a hero that the player will control. Each hero type has different strengths and weaknesses. The game map consists of 9 different terrains located in a grid as shown on fig.1.

|  |  |  |
| --- | --- | --- |
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |

On each terrain there are 3 main types of object (Static, Enemies and items). The player’s hero starts in the middle of the map and the player can move him freely around the map controlling the chosen hero by clicking on the map surface. While moving the hero can collide with the objects on the map. If the hero hits a static object like a tree or a stone he stops moving, if the hero collides with an enemy automatically begins a battle, if the hero steps on an item he can take it into his inventory and use it later on. Right-clicking on an object will display information about the object.

**Purpose of the game.**

The main purpose of the game is gaining experience points and raising levels by battling enemies. For each level the player receives 5 character points that he can use to raise the hero’s vitality, agility, strength or wisdom and therefor evolve the hero.

**Items**

There are 2 types of items, Magical and wearable. The magical items can be used to cast spells, restore the hero’s health points and so on… the wearable items can be placed on the hero and provide bonuses to his damage, defense, strength and so on…

**Battle**

The battle is performed as third person fight game (Mortal Combat, Street Fighter). The battle is lost if the hero’s health points reach 0 and he dies. If the hero is victorious he receives experience point and sometimes the fallen creature drops some items that the hero can take and use.

**Other**

On a regular basis the hero restores his health and mana points automatically.

**Magic**

There are 2 types of magic in the game. The first is the magic performed by scrolls and potions. The second is the battle spells that the hero possesses and can use during battle at the cost of mana points.

**CODE**

**Fulfilled Requirements**

**All of the General Requirements are fulfilled as follows**:

* At least **5 interfaces** (with one or more implementations)
  + IMoveble
  + IWearable
  + ITakeble
* **At least 15 classes (implementing the application logic)**
  + Hero
  + Enemy
  + Static Obsticle
  + WeaponArmor
  + Background
  + Terrain
  + HeroInventory
  + RandomGenerator
  + Game
  + Movement
  + Battle
  + Exceptions
  + Creatures
  + Obsticle
  + And more ☺
* At least **3 abstract class** (with inheritors)
  + Obsticle
  + Creature
  + Items
* At least **1 exception class** (with usage in your code)
  + CannotBeNegative
* At least **3 levels of depth in inheritance**
  + Obsticle inherited by
  + Creature and Items inherited by
  + Hero, Ememy, and WeaponArmor, MagicalItem
* At least **1 polymorphism**
  + Ovveride of the ToString() to display information about the object
* At least **1 structure**
  + **?????**
* At least **1 enumeration**
  + ObsticleType
  + ItemType
  + StaticObsticleType
  + OnCharacterLocation
  + BonusType
* At least **1 event** (with subscribers)
  + HeroMove
  + HeroLevelUp
  + BattleStart
  + ObsticleHit
  + ChangeScreen
* At least **1 design pattern** (e.g. Composite, Singleton, Factory, Wrapper, Bridge, Command, Iterator, …)
  + Singleton – in Game class.

**Other Acheivements**

* Serilization used for Save and LoadGame.
* Implementation of DragAndDrop.
* **Perfectly organized code** according to everything thought about quality of the code in the autumn Academy to this day. This includes intelligently chosen classes and variables names. Good numeration of project files. Implementation of the principle one method - only one function. And many more...
* **Fulfillment of optional requirements:** Using System.Windows.Forms; Implementation of Sound (music during game).