**Finding monsters from database.**

**Start Function**

Connect to database to find monsters.

Is connection successful?

Catch error

Print error to screen.

Gather all monsters from monster database.

Print records one by one to screen, according to which monster is being used.

**End function**

No

Yes

To find a monster from the database the monster database will be connected, if not connected an error message will be displayed. However, if it is connected then the monster database will gather all information on its monsters and then print records, which are suitable to the player’s level.

**Select Monster**

**Start Function**

Connect to database.

Is connection successful?

Catch error

Print error to screen.

Search monster table.

Select all monsters, which are equal to player’s level.

**End function**

No

Yes

Save ID’s of found monster in a vector.

Spawn monster function with the ID as a parameter.

Select a random monster ID from vector.

To select a monster, the monster database will be connected, if connection not successful then the user will be notified with an error message, if connection is successful then the program will search for all suitable monsters that are equal to the player’s level; once the monsters that are equal to the player’s level have been found then the program will randomly select and spawn a monster from the list.

**Spawn Monster**

**End function**

Spawn random monster, from the list of monsters equal to player’s level.

Select a random monster ID from vector.

Save ID’s of found monsters in a vector.

**Start Function**

Connect to database to find monster to spawn.

Is connection successful?

Catch error

Print error to screen.

Gather all monsters from monster database.

Select all monsters which are equal to player’s level.

The program will connect to the monster database and find an equal monster that is the equal level as the player and then randomly spawn a monster from the list. When this is being done the program will save all of the monster’s data into a vector, that way it easy for a random monster to be spawned.

**Load weapon shop**

**Start Function**

Connect to database.

Is connection successful?

Catch error

Print error to screen.

Search weapon database.

Display all weapons equal to the player’s level.

NO

YES

**End function**

The program will connect to the database and search the weapon records, then will display all weapons that match the player’s level. The player can then purchase weapons and this will automatically add it to their own inventory.

**Select weapon**

Add weapon to player’s inventory.

Take cost of weapon and minus from the amount of gold the player has.

Select weapon and purchase.

**Start Function**

Connect to database.

Is connection successful?

Catch error

Print error to screen.

Search weapon database.

Display all weapons equal to the player’s level.

NO

YES

**End function**

The program will connect to the database and search through all of the weapon records, then the program will find specific weapons that are equal to the users level; once this has been done the program will then display all weapons that the player can purchase and add to their own inventory.

**Hunting**

**Start Function**

Connect to database.

Is connection successful?

Catch error

Print error to screen.

Gather player’s ID and monster ID e.g. health, name, exp, potions etc.

Display fighting menu e.g. flee, attack, heavy attack, drink potion etc.

**End function**

NO

YES

When hunting the program will connect to the database and gather all information on both player and the monster it is fighting such as HP, Mana, EXP, potions, name etc. When the monster and player both encounter the battle display menu will be displayed to the user, so that they can choose which action to take such as heavy attack, normal attack, drink potion, flee etc.

**Reset menu**

**Start Function**

Connect to database.

Is connection successful?

Catch error

Print error to screen.

Gather player’s ID and all of their information.

Reset battle menu, reset players health, exp gained, mana etc.

NO

YES

Show new battle menu

**End function**

The program will run the database and connect to it, if not then an error message will be displayed, however if successfully connected then in the background of the program the reset of the battle menu will be carried once a battle has been made from a monster and the player. This will reset data such as health, mana, exp gained, money gained etc.

**Instruction menu**

**Start Function**

Connect to database.

Is connection successful?

Catch error

Print error to screen.

Gather player’s ID and all of their information.

Display player’s information on a pop-up window; showing gold, EXP, health, level, mana etc.

**End function**

This will be done by connecting to the database and then gathering all of the player’s ID and information. The player can then view all of this information in a small pop-up window.