# Uniwersytet im. Adama Mickiewicza w Poznaniu Wydział Matematyki i Informatyki



**WITCHER**

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## Leading classes:

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**Description of the database**

The primary purpose of the database is to help a gamer to get in touch with the game world. **The assumptions are the following:**

1. Each in-game hero has its own ID (unique) and a level (not unique).

2. Each hero may choose a weapon, armor, food, elixir, oil and a bomb.

The database consists of **7 following tables:**

1. Armors - includes information about different types of armor.

2. Silver\_weapons - includes information about different types of silver swords.

3. Elixirs - includes information about the different types of elixirs.

4. Oils - includes information about different types of oils.

5. Bombs - includes information about different types of bombs.

6. Meals - includes information about different types of food.

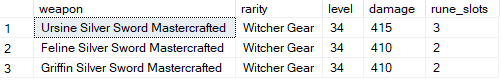
7. Heroes - includes information about all the heroes.

**The reports are as follows:**

1. Most effective meal – shows the best meal and its ‘taste’.



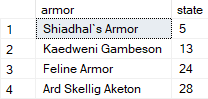
2. Master weapon – shows the weapon name, its rarity, level, damage and slots.



3. Damage that can be dealt by a hero – shows hero`s name and damage.



4. Broken armor – shows which armor is broken.



5. Monster`s weak points – finds monster`s weak point.



6. Damage dealt to the hero – shows the damage dealt to a hero, based on the monster and the armor hero has.



**Table descriptions**

Table **Armors**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Column** | **Description** | **Data type** | **Empty value** | **Standart value** | **Links** | **Check** |
| armor | armor`s name | VARCHAR(50) | NO |  | PK |  |
| type | armor`s type | VARCHAR(20) | NO | 'Light' |  |  |
| rarity | armor`s rarity | VARCHAR(20) | NO | 'Magic Item' |  |  |
| level | armor`s level | INT | NO |  |  | 1-51 |
| state | armor`s state | INT |  |  |  | 0-100 |
| AR | armor`s AR | INT | NO |  |  | 1-501 |
| glyph\_slots | number of glyph slots | INT |  |  |  | 0-3 |
| location | armor`s location | VARCHAR(255) | NO | 'Purchased from Willis' |  |  |

Table **Silver\_weapons**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Column** | **Description** | **Data type** | **Empty value** | **Standart value** | **Links** | **Check** |
| weapon | weapon`s name | VARCHAR(50) | NO |  | PK |  |
| rarity | weapon`s rarity | VARCHAR(20) | NO | 'Magic Item' |  |  |
| level | weapon`s level | INT | NO |  |  | 1-51 |
| damage | weapon`s damage | INT | NO |  |  | 1-499 |
| rune\_slots | number of rune slots | INT |  | 0 |  | 0-3 |

Table **Elixirs**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Column** | **Description** | **Data type** | **Empty value** | **Standart value** | **Links** | **Check** |
| elixir | elixir`s name | VARCHAR(50) | NO |  | PK |  |
| duration | elixir`s duration | INT | NO |  |  |  |
| toxicity | elixir`s toxicity | INT |  |  |  |  |
| doses | amount of doses | INT | NO |  |  |  |

Table **Bombs**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Column** | **Description** | **Data type** | **Empty value** | **Standart value** | **Links** | **Check** |
| b\_id | bomb`s id | INT | NO | Counter (1, 1) | PK |  |
| bombs | bomb`s name | VARCHAR(50) | NO |  |  |  |
| effect | bomb`s effect | VARCHAR(255) | NO |  |  |  |
| damage | bomb`s damage | INT |  |  |  |  |
| duration | duration of the effect | INT |  |  |  |  |
| charges | amount of times a hero can use a bomb | INT | NO |  |  |  |
| ingredients | bomb`s ingredients | VARCHAR(255) | NO |  |  |  |

Table **Oils**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Column** | **Description** | **Data type** | **Empty value** | **Standart value** | **Links** | **Check** |
| oil\_id | oil`s id | INT | NO | Counter (1, 1) |  |  |
| oil | oil`s name | VARCHAR(50) | NO |  |  |  |
| buff | the buff oil gives | INT | NO |  |  |  |
| target | monster`s name | VARCHAR(100) | NO |  | PK |  |
| charges | amount of times a hero can use an oil | INT | NO |  |  |  |
| basic\_ingr | oil`s basic ingredient | VARCHAR(255) | NO | 'Dog Tallow' |  |  |
| aux\_ingr | oil`s auxilary ingredint | VARCHAR(255) | NO |  |  |  |

Table **Meals**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Column** | **Description** | **Data type** | **Empty value** | **Standart value** | **Links** | **Check** |
| m\_id | meal`s id | INT | NO | Counter (1, 1) | PK |  |
| meal | meal`s name | VARCHAR(50) | NO |  |  |  |
| effect | amount of HP added by the meal per second | INT | NO |  |  |  |
| duration | meal`s duration | INT |  |  |  |  |
| price | meal`s price | INT |  |  |  |  |

Table **Heroes**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Column** | **Description** | **Data type** | **Empty value** | **Standart value** | **Links** | **Check** |
| h\_id | hero`s id | INT | NO | Counter (1, 1) | PK |  |
| hero | hero`s name | VARCHAR(50) | NO |  |  |  |
| level | hero`s level | INT | NO | 1-81 |  |  |
| silver\_armor | chosen armor | VARCHAR(50) | NO |  | FK |  |
| weapon | chosen weapon | VARCHAR(50) | NO |  | FK |  |
| delicacy | id of the chosen meal | INT | NO |  | FK |  |
| imunity | name of the monster | VARCHAR(100) | NO |  | FK |  |
| elixir | chosen elixir | VARCHAR(50) | NO |  | FK |  |
| bomb\_id | id of the chosen bomb | INT | NO |  | FK |  |

**Most effective meal**

View “Best\_meal” is used for this report. This report counts the ‘taste’ of all the meals and shows the meal with the biggest amount of HP restored. Such information is important while playing the game as you always need to know how to restore as many HP as possible and as fast as possible.

**Master weapon**

View “Master\_weapon\_dmg” is used for this report. This report shows the weapon which is ‘Mastercrafted’ and sorts it by damage in the ascending order.

**Damage that can be dealt by a hero**

View “Hero\_dmg” is used for this report. This report finds out, using INNER JOIN, the damage that a hero can cause by a weapon he holds.

**Broken armor**

View “Broken armor” is used for this report. This report finds highly worn out/damaged armors and shows 4 of them, which need to be immediately repaired. It is an undoubtedly useful view as if the AR of the armor drops to 0, a hero will get significantly more damage from monsters.

**Monster`s weak points**

Procedure “Weak\_points” is used for this report. This report, based on 1 variable, which is a name of a particular monster, finds out its weak point using Oils table. As a result, we see a monster`s name and a special ingredient (aux\_ingr) to defeat him. Such information is important when a hero faces strong monsters, which he can`t kill only using his strength.

**Damage dealt to the hero**

Procedure “Decision” is used for this report. This report, based on 2 variables, which are hero`s name and monster`s power, decides whether the hero will withstand the damage, calculated using a special formula, that considers hero`s armor state, level and monster`s power.

