**Crispy Crawl**

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1.0 **Overview**

* 1. Purpose of this Document

The purpose of this document is to record the design and development of our game. The game is being developed for an ECA 241 class at Stark State College.

* 1. Planned Design and Development Timeline.

Feb 5 – High Concept Document and planned timeline finished

Feb 7 – Sound prototype in game

Feb 21 – Game design document completed (still subject to change)

Feb 28 – Prototype engine completed, includes player attacking, monster/player movement, and game lighting

Mar 7 – Over world prototype with dungeons displayed on map  
All non-boss monsters in game (may still replace some monsters with other monsters)   
All dungeons in-game (may not be playable)

Mar 14 – Alpha complete.  
Monster and player health functional  
Items and inventory prototype

Mar 21 – Dialogue and basic cut scene scripting

Mar 28 – Story integration  
GUI finished  
Over world complete

Apr 5 – Game mechanics balancing finished

Apr 10 – Cut scenes finished and in-game

Apr 12 – All story in-game and finished

Apr 19 – Beta

May 9 – Game released

2.0 **Game Design**

2.1 Game Concept and Genre

Our game is a role playing, adventure game that has an isometric camera view on the player character. The game will consist of multiple dungeons, each ending with a boss battle. The player will face monsters while traversing dark dungeons to save his family. The player will choose from three weapon and armor classes that allow the player to pick a desired play style. Monsters will also inherit the class traits and the player will have to change their weapons and armor to counter the weapon type or suffer penalties. Dungeons will grow darker as the player progresses and daring players can try to memorize the layout and challenge dungeons with no light source. The player will be able to play a dungeon or enter the shop through the over world map system.

The game will follow in the footsteps of previous games of its style like Legend of Zelda and The Binding of Isaac. The combat system will be a basic attack and avoid style where the player can swing their weapon and will have to avoid contact with enemies. Dungeons will be laid out as a series of square rooms, and the player will have to achieve an objective for the doors to the next room to open. Objectives can be anywhere from killing all the enemies in the room, finding a key in a chest, or hitting a hidden button.

2.2 Feature Set

* **Weapon classes**

Weapon classes will allow the player to choose from three different play styles each strong against one and weak against the other. This helps keep a dominant strategy from forming and allows for various play styles while requiring some minor dungeon planning. The three weapon classes will be melee, ranged, and magic. The melee class is weak to magic attacks and strong against ranged attackers. The ranged class is weak to melee attacks and strong against magic attackers. The magic class is weak to ranged attacks and strong against melee attackers.

* **Darkened dungeons**

Dungeons will start unlit and the player will make use of torches to light the dungeon to be able to see and progress. The higher the difficulty of the dungeon, the darker it will be. The player will have a small area of light to illuminate the player character, so he will not be completely concealed, but monsters will be hard to fight against as the lit area will be very small. The player will be able to plant a torch which will expand the area of light but is not movable.

* **Over-world map**

The over-world map will be a map consisting of boxes that represent possible destinations. A sprite will show the player’s current position, and clicking on the map will move the player to their destination, be it a dungeon or shop. This will also allow you to replay dungeons that the player has found, either for fun or for loot.

* **Limited inventory space**

Inventory space will be limited to 4 slots not including equipped weapons and armour, which will be a different 4 slots reserved for specific items. This means the player will have to plan more before entering a dungeon. This will keep the player from bringing every type of weapon and armour since they will need room for healing items, torches, and loot.

* **Monster dropped items**

Monsters will drop basic healing items and currency. Bosses will reward the player with access to a chest containing higher level loot.

* **Treasure chests**

Treasure chests will be throughout the dungeons and will reward the player with a variety of items. These items will include armour, weapons, healing potions, and currency. A special chest will reward the player after defeating a dungeon boss.

* **Dynamic Dungeons**

Dungeons are generated as you play, so dungeons will vary every play through. Every time you enter a dungeon, a new experience will unfold.

2.3 Target Audience

Crispy crawl is designed with low power pcs in mind. It is 2D, and will have low processing power requirements needing no video card to play. This means anyone with time to waste could play the game. In theory, any operating system will play the game, but we only plan on releasing it for the Windows 7 computers in Stark State College.

3.0 **Gameplay**

3.1 Dungeons

Dungeons will be displayed as a series of rooms linked by doors. The rooms will get darker as you progress through the dungeon, and the dungeons will start darker than the dungeon before them started. Each dungeon will have two monsters and one boss. The monsters will be different types (ex: ranged and magic), and the boss will be the third type (ex: melee). After defeating the boss, the next dungeon will unlock, the player will receive a chest with better-than-norm loot, and the player character will warp to the world map. Dungeons are created on a grid system to simplify monster AI, although neither the player nor the monsters are restricted to using the grid for movement.

3.2 Monsters

Monsters are designated to have a specific type. The monster type determines its attack and defence attributes (unlike the player, who can equip different armor and weapons). There will be an estimated average of 4 monsters per dungeon room.

Slime

Type: Magic

HP: 25

Damage: 25

Bandit Archer

Type: Ranged

HP: 25

Damage: 30

Skeleton

Type: Melee

HP: 50

Damage: 30

Skeleton Archer

Type: Ranged

HP: 50

Damage: 50

Knight

Type: Melee

HP: 100

Damage: 60

Mage

Type: Magic

HP: 100

Damage: 60

3.3 Characters

Shopkeeper

Gives items and dungeon locations

Non-combatant

Player

HP: 100

Equipment slots: 4 (head, chest, legs, hands)

Inventory slots: 4

3.4 Bosses

Essence of fury

Type: Melee

HP: 100

Damage: 50

This boss will perform melee based attacks such as swings of a large weapon and charging at the character.

Essence of knowledge

Type: Magic

HP: 150

Damage: 100

This boss will launch large area-of-effect magic attacks at the character. The boss will sometimes swing a large staff if the player gets too close.

Essence of pain

Type: Ranged

HP: 250

Damage: 100

This boss will be ranged based and fire off projectile attacks with larger than normal knockback.

3.5 Items

Items are objects in the game that the player will be able to obtain that are added to their inventory. Items will be obtainable by defeating monsters, the player opening a treasure chest, or the player purchasing an item from the shop. Items will also be broken into the sub-categories.

**Currency:** Used to purchase other items. This particular item will not consume inventory space.

**Weapons and armor:** Used to increase the player’s damage power and survivability. These items consume one inventory space each, and can only be equipped to the player if put in the designated equipment slot.

**Consumable:** Items have one use, once used these items will be deducted from the player’s inventory. Some items are stackable.

*Weapons*

The player will equip weapons to damage enemies. The equipped weapon will determine what damage bonuses the player will get against monsters. If a weapon is strong against the monster’s type, the weapon’s attack power is doubled. The weapons that can be equipped are classified into three main types.

Melee: Base damage comparable to magic, but has the fastest attack speed. Swords are strong to ranged based enemies. The enemy/ies will be damaged upon contact with the melee weapon during a melee attack.

Ranged: Bows are a high damage weapon that can hit a single enemy from a range. Bows have a low knock back effect of one and a half grid squares, and are strong to magic based enemies. Bows spawn an arrow that will damage a monster upon contact.

Magic: A magic staff will let off a magic attack that allows the player to hit a group of enemies from a medium range. Magic will have a knockback of one grid square, and are strong to melee based enemies.

**Melee types**

Bronze Sword: Attack = 10

Iron Sword: Attack = 20

Steel Sword: Attack = 40

**Ranged types**

Maple Bow: Attack = 15

Oak Bow: Attack = 30

Mahogany Bow: Attack = 60

**Staff types**

Wood Staff: Attack = 10

Metal Staff: Attack = 20

Carbon Fiber Staff: Attack = 40

*Armor*

Armor is an item that increases a player’s survivability by raising their defence attribute. The name of the armor class denotes the weaknesses and resistances of the player within the weapon triangle. The armor reduction is applied after weapon triangle bonuses.

**Anti-Ranged (melee) Armor**

Bronze Armor: Defence = 7

Iron Armor: Defence = 15

Steel Armor: Defence = 30

**Anti-Magic (ranged) Armor**

Leather Armor: Defence = 5

Hard Leather Armor: Defence = 13

Scale Armor: Defence = 25

**Anti-Melee (mage) Armor**

Cloth Armor: Defence + 3

Chain Mail Armor: Defence + 10

Otherworldly Mail Armor: Defence + 20

*Potions*

Potions will be used to restore hit points to the player they are stackable and have varying effects. You can stack up to 9 potions in one inventory slot.

Potion: Restores 25% of your health.

Big Potion: Restores 50% of your health.

Mega Potion: Restores 75% health.

*Torches*

Torches, when placed on the ground, will provide a light source to light the surrounding area. You can carry 32 torches in one slot.