Karan Heir

Mr. Cerone

ICS3U0

June 7th, 2019

korZ Development Diary

Thursday, May 30th.

Created initial welcome screen as well as character name card. No problems.

Friday, May 31st.

Finished up welcome screen and character name creator. Created character stats. Minor problem with limiting points available.

Monday, June 3rd.

Finished up stat creation and limited points to four per category, 6 points total. Began to create map. Problem with setting up a 2D Array to use as a map

Tuesday, June 4th.

Map fully functioning, tested how to move. Problem with limiting the player by not allowing player to move off of the map. Created Battle() method.

Wednesday, June 5th.

Fixed map and map perfect. Placeholder names replaced with location names from RuneScape. Random monster generator for battle system created, random item generator created, as well as created ability for player to explore an area and have a chance of finding loot, although the loot wasn't actually implemented yet. No problems

Thursday, June 6th.

Stats actually had a function now and Attack system and Flee system of battle created. Difficulty in getting magic system to work

Friday, June 7th.

Magic system implemented, as well as special locations (Inn, Market, Dueling Ring/Fight Bets) and fixed up random item generator and replaced it with random chance to find 5 different items that either improve a stat or

provide character with gold. Monster types now actually had a function, with each being weak to a specific spell. Problem with getting the battle to function properly.

korZ User Guide

korZ starts the player out with the ability to enter their name and the character name. Enter your character name, and after this, the game will prompt you to select your characters stats. You can only invest 4 points in each category at the start, and only have 6 stat points to invest. Once you create your character, the game will display your character's character card. The game will also give you a free 10 gp, which you may notice displayed on your character card. The game will then open up with an ASCII representation of the town your character will start in, Varrock. The game will also then tell you that you are currently located within the Kingdom of Misthalin, in the town of Varrock, and the game then prompts you perform an action

```
Welcome player to korZ!
Please enter your name:
> Karan Heir
Welcome Karan!
Karan, please enter your character's name:
> Zukai Mondar
Karan, please enter Zukai's Character Stats. (6 Stat points total, no more than 4 per category)

Strength (6 remaining): 3
Agility (3 remaining): 0
Intelligence (3 remaining): 0
Endurance (3 remaining): 3
|
Zukai's character card
Name: Zukai Mondar
Strength: 3
Agility: 0
Intelligence: 0
Endurance: 3
Gold: 10 gp
Health Remaining: 160
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Welcome to the Kingdom of Misthalin, you are currently in the town of Varrock.
There is an inn in this town.
Perform an action
>
```

From here, you can perform a few different actions. The guide will now explain each of the actions you can perform on the next page.

Explore

This action is self-explanatory, and it makes your character to explore the surrounding region. The character has 50% chance of finding five different items, A Strength Rune, which increases strength, a Book of Nagash, which increases Intelligence, a Thief Stone, which increases Agility, a Heart Crystal, which increases Endurance, and a coin purse that has a random amount of coins from 1-30 in it. Each of the items that increase an attribute will do so by three, making them quite powerful, but you can only loot five times, regardless of whether you find something, before you must do battle.

```
> Explore
Zukai found a Book of Nagash!
Zukai's stat card has been changed!

Zukai's character card
Name: Zukai Mondar
Strength: 3
Agility: 0
Intelligence: 3
Endurance: 3
Gold: 10 gp
Health Remaining: 160
There is an inn in this town.
Perform an action
>
```

Battle

Monsters

The battle command will automatically start a battle for you, which could be useful if you're looking to get gold quick. The game will randomly generate a monster for you. Monsters consist of two different parts, their type, and their species. The species of the monster determines its health and damage, while the magic determines it's resistance. Each monster has a base health of 60 and a base damage of 15, but this is modified by an additional $y*12$ for their health, or $y*2$ for their damage, where y represents their rank on the Monster Tree. The Monster Tree is as follows:

0. Wulf
1. Wyrm
2. Kobold
3. Goblin
4. Barbarian
5. Orc
6. Ogre
7. Troll
8. Giant

This tree means that a Wulf will have an attack of 15 and a health of 60, whereas a Giant will have an attack of 31 and a health of 156.

Next is the monster type, and there are 9 different types of monster, Fire, Frost, Wood, Storm, Earth, Shadow, Holy, Normal and Water, which each have different effects with your spells, which will be covered later on in the manual.

Attack

Your physical attack damage is determined by twice your strength attribute plus 15. Your health is determined by your endurance multiplied by 20 plus a base of 100, and your dodge chance is determined by your agility divided by 100 multiplied by 15, and a additional 0.05. Your attack is your go action during battle and will do consistent damage to all types of enemies, however, each enemy has a 20% chance to dodge the attack.

Magic

Spells are unique in that they can only be cast once every three turns. You have four different spells at your arsenal, Heal, Fireball, Thunderbolt, and Freeze. Heal will always heal you by 20 points of health, unless that would bring you over your maximum health, in which case it will heal you to your max. Your offensive spell damaged are first determined by twice your intelligence plus an additional 30, meaning spells do more damage than attacks. The damage of your spells are also determined by your enemy type. Earth type monsters are completely immune to all types of offensive magic, whilst holy and shadow enemies take half damage from all spells. If you attack an enemy with a spell with the same element as their type, then it will heal them 20 points, or to their maximum health. Some types, however, take double damage against certain spells. Wood takes double damage from fire, water from thunder, and fire from frost. This means that these spells can potentially do a base of 60 damage on an enemy.

Flee

Of course, if a battle seems too hairy, you can always escape, and the chance for this is determined for your dodge chance, so if you have no points invested into agility, you will only have a 5% chance to flee from a battle.

Battle Victory

Once you win a battle, you will be rewarded by a base of 10 gold with an additional amount modified by your monsters' position in the Monster Tree multiplied with 20. 5% of the time, instead of being rewarded with the usual amount of gold, you may instead find a bag of 300 gp instead.

```
Zukai Mondar has 97 points of health remaining

Karan's turn
Turns remaining until spell can be cast :0
What action would you like Zukai Mondar to perform?
> Spell
What spell would you like Zukai Mondar to perform?
1. Heal
2. Fireball
3. Thunderbolt
4. Freeze
>  Heal
Zukai Mondar casts Heal!
20 points of health healed!
Zukai Mondar now has 117 points of health remaining.
Water Goblin has 33 points of health remaining

Water Goblin attacks!
Water Goblin hits!
Water Goblin deals 21 points of damage to Zukai Mondar

Zukai Mondar has 96 points of health remaining

Karan's turn
Turns remaining until spell can be cast :3
What action would you like Zukai Mondar to perform?
> Attack
Zukai Mondar attacks!
Zukai Mondar hits!
Zukai Mondar deals 21 points of damage.

Water Goblin has 12 points of health remaining

Water Goblin attacks!
Water Goblin misses!

Karan's turn
Turns remaining until spell can be cast :2
What action would you like Zukai Mondar to perform?
> |
```

Depiction of a Battle in korZ

Move

Again, this is self-explanatory, and allows you to change your location on the map. The map is depicted below:

Goblin Village	Grand Exchange	Daemonheim
Barbarian Village	Varrock	Coal Mine
Draynor Manor	Farm	Al-Kharid Desert

Each time you move to a new location, there is a 30% chance that you will enter a battle. Certain locations in the game also have special locations inside of them which have different activiities

Special Locations

The game has three special locations, the Inn, located in Varrock, the market, located in the Grand Exchange, and the Dueling Ring, located in Al-Kharid Desert. These are entered by entering "Inn", "Market", and "Duel" in their respective locations. The inn allows for you to heal your character for the price of 20gp. The market allows for you to enhance one attribute by 5 for the price of 100 gp, or all of you attributes by 10 for the price of 1000 gp. The Dueling Ring has two different activities for you to do. The first is dueling, which allows you to safely level up an attribute. You cannot control your character like normal in a battle, instead, your character has an 80% chance of winning or losing a fight. If your character wins 5 battles, then a random attribute will level up. If you want to level up faster, you may be interested in high-stakes dueling, which unlike normal duelling, is deadly, and will cause a game over if you die, but will level up an attribute every time you win a duel. The other activity available in the Dueling Ring is duel betting. You can bet any amount of gold available on you, and if the fighter you choose wins, you double your bet.

Stats

This command allows for you to see your character card, which also displays your gp and how much health you have left.

Quit

This command allows for you to end the game, and this is among only three ways to end the game, as there is no end to the game. The other two ways are dying in battle or dying in a high-stakes duel. Once you end the game, the game will tell you how many monsters you killed, how many duels you won, and how many bets you won, and will then end.

```
Start

Prompt user for input

Displays stats from input

Prompt user for input

Action.equalsIgnoreCase(Explore)
  True → Random number generated → Chance > 0.5
      True → Random Item Found
      False → Nothing Found
  False → Action.equalsIgnoreCase(Move)
      True → Player Moves → Chance > 0.7
          True → Enemy Encountered → moonhealth > 0
              True → Player Wins
              False → Player Dies
          False → (Player Wins)
      False → Action.equalsIgnoreCase(Battle)
          True → Enemy Encountered
          False → Action.equalsIgnoreCase(Inn)
              True → Player Healed
              False → Action.equalsIgnoreCase(Duel)
                  True → Chance > 0.2
                      True → Player Wins
                      False → Player Loses → highstakes
                          True → Player Dies
                          False → (exit)
                  False → Action.equalsIgnoreCase(Duel)
                      True → Action.equalsIgnoreCase(Bet)
                          True → F-1 Health > 0
                              True → Fighter 1 Wins → fighter == 1 || fighter == 2
                                  True → Player wins Bet
                                  False → Player loses bet
                              False → Fighter 2 Wins
                          False →
                      False →

!Action.equalsIgnoreCase(Quit)
  True → Program End
  False →
```