

A Text-based RPG

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10/27/16

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Introduction

This is a text-based RPG based off a tutorial area from an online game called Runescape. This area was meant to show players the various mechanics within the game. New players would encounter various non-playable characters who would tell them to do a task that, in turn, teaches the player a mechanic in the game. The player would progress through the various tasks for these characters until they reached the end where they would be teleported off the island and onto the mainland.

Summary

Project Size: 550+ lines

Number of Variables: ~10

This game was made to be simplistic due to it functioning as a tutorial. Some game mechanics such as burning food, were left out as I was unsure on how to implement them correctly. I left out the possibility of dying as this was supposed to function as a tutorial. Given a less hectic schedule, I believe that I would have been able to implement these mechanics. I also think I could have trimmed down the project by removing things that I didn't need. I passed some variables through various functions to help cut down on the number of variables used but led to most of issues I faced aside from holes in my logic.

This project overall took a couple of days to finish. It wasn't too difficult once I understood how to implement what we learned recently. It was more tedious than difficult. However, I referenced sites on the web to help fix any errors that I faced.

Pseudocode

```
Int main(){
    If Start is selected
        Call House() function
    If Exit is selected
        End Program
}

void House() function{
    If Talk to the man
        Go Outside
    If Go Outside
        Call Pond() function
    If Exit Game
        End Program
}

void Pond(){
    Chop down tree
    If Open Inventory
        If Use Tinderbox and Logs
            Make Fire
            Call Cook() function
```

```
        If Exit Inventory
            Talk to Survival Expert
            Make Fire
            Call Cook() function
    If Talk to Survival Expert
        Make Fire
        Call Cook() function
}
```

```
void Cook(){
    If Cook Shrimp
        Call Mines() function
    If Talk to Survival Expert
        Call Mines() function
}
```

```
void Mines(){
    If forge Dagger
        Set weapon to 3
        Call Combat() function
    If forge Short sword
        Set weapon to 5
        Call Combat() function
    If forge Two-hand Sword
        Set weapon to 8
        Call Combat() function
    If forge Scimitar
        Set weapon to 6
        Call Combat() function
    If forge Axe
        Set weapon to 7
        Call Combat() function
}
```

```
void Combat(){
    If equip short sword
```

```

        Set weapon to 5
    If equip Forged Weapon
        Set weapon to forged weapon value
    Equip Shield
    Call RatFight() function
}

```

```

void RatFight(){
    Fight rat until HP hits 0
        If Attack Rat
            Deal damage
            Show remaining HP
        If Don't attack Rat
            Attack Rat
    Defeat Rat
    Call Bank() function
}

```

```

void Bank(){
    If Choose gold
        No Gold to deposit
        Call Magic() function
    If Choose items
        If deposit shrimp
            Ask Number of shrimp to deposit
            Shrimp deposited
            Call Magic() function
        If deposit short sword
            Short sword deposited
            Call Magic() function
        If deposit forged weapon
            Forged weapon deposited
            Call Magic() function
        If deposit shield

```

```

        Shield deposited
        Call Magic() function
    If deposit tinderbox
        Tinderbox deposited
        Call Magic() function
    If deposit axe
        Axe deposited
        Call Magic() function
    If Leave Bank
        Call Magic() function
}

void Magic(){
    Character Dialogue
    Call PracMag() function
}

void PracMag(){
    5 spells left
    Spell damage is 2
    Fight until out of runes
        If Attack Chicken
            Deal damage
            Show remaining HP
        If Don't attack chicken
            Attack Chicken
    Fight ends
    If Fight again
        5 spells left
        Fight until chicken runs out of HP
            If Attack Chicken
                Deal damage
                Show remaining HP
            If Don't attack chicken
                Attack Chicken
        Fight ends
        Call End() function
    If Leave Island
        Call End() function
}

```

```

}

void End(){
    Thanks for playing
}

```

Flowchart

Flowchart found at:

<https://www.gliffy.com/go/publish/11368655>

Variables

```

~~~~~int main()~~~~~
int input                Used for menu inputs /
                        Passed through functions
~~~~~void House(&input)~~~~~

~~~~~void Pond(&input)~~~~~
int input2              Used for additional
                        Inputs

```



~~~~~void Cook(&input)~~~~~

~~~~~void Mines(&input)~~~~~

int weapon Holds damage value for
a weapon

~~~~~void Combat(&input,&weapon)~~~~~

~~~~~void RatFight(&input,&weapon)~~~~~

int EHealth Holds health value for
rat

int damage Holds damage value

char choice Choice to attack

~~~~~void Bank(&input)~~~~~

int input2                      Additional input

int num                          # of shrimp to deposit

~~~~~void Magic(&input)~~~~~

~~~~~void PracMag(&input)~~~~~

int CHealth                      Holds HP value for  
chicken

int damage                      Holds damage value

~~~~~void End()~~~~~