# IT 140 Design Document Template

## Instructions

Fill out the sections below. Be sure to remove the bracketed text before submitting your Design Document.

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## Storyboard (Description and Map)

The evil hungry king is going to behead you unless you bring him a cake. You will have to get a key from the bedroom to unlock the pantry and get the flour. You will have to get a key for the cupboard out of the courtyard to get sugar from it. You will have to go to the pasture and get milk from the cow. You will have to go to the chicken coop for eggs. Once you have all the ingredients you will have to bake it and finally give it to the king.

ne

Bedroom

Key for Pantry

Cupboard

Sugar

Need cupboard Key to move in

Kitchen

Oven

Need Flour, Sugar, Eggs, and Milk to bake cake

Chicken Coop

Eggs

The Kings

Dining Room

Need Cake to not lose your head

Pantry

Flour

Need pantry key to move in

Start

Courtyard

Key for Cupboard

Pasture

Milk

east east

west west

north south south north south

east

west

north south north north south

east east

west west

4 & 5. The way I designed my game was to have each room as a different function that includes the item as a Boolean on whether you have it or not, and calls functions for the other rooms depending on the input. The input function is used for both getting the items and for moving.

Define user input function  
 print To move rooms type North, South, East, or West.  
 print To pick up item type 'Get' and the name of the item.  
 set user command to empty string  
 while user command is empty string then  
 input user command  
 change user command to all lower case  
 split user command into a list on any spaces  
 if the user command list at [0] is ‘get'  
 set user command to the user command list at [1]  
 else  
 set user command to the user command list at [0]  
 return user command

Define start room function

Input function

Set input to not valid

While input is not valid

If command is west

Set input to valid

Call function for courtyard

Else if command is south

Set input to valid

Call function for chicken coop

Else

Print not valid command

Input function

Define pasture function

Input function

Set input to not valid

While input is not valid

If command is south

Set input to valid

Call function for pantry

Else if command is east

Set input to valid

Call function for courtyard

Else if command is milk

Update player inventory to milk is True

Update room inventory to milk is False

Else

Print not valid command

Input function

Define kitchen function

Input function

Set input to not valid

While input is not valid

If command is north

Set input to valid

Call function for pantry

Else if command is east

Set input to valid

Call function for cupboard

Else if command is oven

If player inventory has flour, sugar, eggs, and milk then

Update player inventory to cake is True

Update room inventory to cake is False

Else

Print not valid command

Input function

Define bedroom function

Input function

Set input to not valid

While input is not valid

If command is north

Set input to valid

Call function for chicken coop

Else if command is west

Set input to valid

Call function for cupboard

Else if command is key

Update player inventory to key is True

Update room inventory to key is False

Else

Print not valid command

Input function

Define courtyard function

Input function

Set input to not valid

While input is not valid

If command is west

Set input to valid

Call function for pasture

Else if command is south

Set input to valid

Call function for kings dining room

Else if command is east

Set input to valid

Call function for start room

Else if command is key

Update player inventory to key is True

Update room inventory to key is False

Else

Print not valid command

Input function

Define pantry function

Input function

Set input to not valid

While input is not valid

If command is north

Set input to valid

Call function for pasture

Else if command is south

Set input to valid

Call function for kitchen

Else if command is east

Set input to valid

Call function for kings dining room

Else if command is flour

Update player inventory to flour is True

Update room inventory to flour is False

Else

Print not valid command

Input function

Define cupboard function

Input function

Set input to not valid

While input is not valid

If command is west

Set input to valid

Call function for kitchen

Else if command is north

Set input to valid

Call function for kings dining room

Else if command is east

Set input to valid

Call function for bedroom

Else if command is sugar

Update player inventory to sugar is True

Update room inventory to sugar is False

Else

Print not valid command

Input function

Define chicken coop function

Input function

Set input to not valid

While input is not valid

If command is south

Set input to valid

Call function for bedroom

Else if command is west

Set input to valid

Call function for kings dining room

Else if command is north

Set input to valid

Call function for start room

Else if command is eggs

Update player inventory to eggs is True

Update room inventory to eggs is False

Else

Print not valid command

Input function

Define kings dining room function

Win if you have cake

Lose if you don’t have cake

End of game