# IT 140 Design Document

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## Storyboard (Description and Map)

Medusa is in the skull mansion! Medusa is lurking somewhere on the first floor of the skull mansion. You must gather all the useful items from around the home before you come face to face with Medusa, who can turn you to stone at a glance. You’ll will start in the Forehead Foyer, and will need to gather the poison plant from the Audio Atrium as a lure, the short sword from the Sonic Studio to stab her, the cursed mirror to reflect her image from the Head Hallway, the artistic album to distract her from the Megaron, the cannibal cloak to shield your body from the Cranial Cloakroom, and lastly don’t forget the towel from the Skull Sauna. You never know when a towel may come in handy.

Here is a map of the first floor of the skull mansion:

A diagram of a music studio

Description automatically generated

## Pseudocode for Code to “Move Between Rooms”:

**START:** Medusa in Skull Mansion Adventure Game

**DEFINE:** user\_move\_count to zero

**DEFINE:** current\_room to foyer

**DEFINE:** room\_items matching room names to the items they contain

**DEFINE:** inventory\_list as empty list

**DEFINE**: space\_row to ‘---------------------------'

**WHILE:** current\_room is not crypt

**IF:** user\_move\_count is zero

**PRINT:** ‘Medusa in Skull Mansion Adventure Game’

**PRINT:** ‘Collect all 6 items to win the game before making eye contact with Medusa.’

**PRINT:** ‘Move commands: go South, go North, go East, go West’

**PRINT:** ‘Add to inventory: get ‘item name’’

**ENDIF**

**PRINT:** ‘You are in current\_room ‘

**PRINT:** ‘Inventory: [inventory\_list]’

**DEFINE:** item\_in\_room using room\_item lookup and current\_room

**IF:** item\_in\_room exists

**PRINT:** You see a item\_in\_room

**PRINT:** spacer\_row

**PRINT:** Enter your move:

**READ:** user input to user\_command

**CALCULATE:** add one to user\_move\_count

**IF**: user\_command contains go

**DEFINE**: direction from user\_command

**DETERMINE:** if user can go in that direction from the current\_room

**IF:** the user can go that direction

**SET:** current\_room  
**CONTINUE:** looping

**ELSE:**

**PRINT:** You can’t go that way!

**CONTINUE:** looping

**ENDIF**

**ELSE IF:** user\_command contains get

**DEFINE:** item from user\_command

**DETERMINE:** if user can get item from current\_room

**IF:** user can get item

**INSERT:** item into inventory\_list

**PRINT:** ‘item retrieved!’

**REMOVE:** item from room\_items

**CONTINUE:** looping

**ELSE:**

**PRINT:** ‘Cant user\_command!’

**CONTINUE:** looping

**ENDIF**

**ELSE:**

**PRINT:** ‘Invalid Input!’

A flowchart with black text

Description automatically generated **CONTINUE:** looping

**ENDIF**

**ENDWHILE**

**PRINT:** You are in the Canine Crypt

**PRINT:** ‘Inventory: [inventory\_list]’

**PRINT:** ‘You see Medusa. You are turned to stone.’

**PRINT:** ‘GAME OVER’

**PRINT:** ‘Thanks for playing the game. Hope you enjoyed it.’

## Flowchart for Code to “Get an Item”: