# IT 140 Design Document Template

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## Storyboard (Description and Map) Description: The Dark Fortress is the last obstacle that remains between *The Knight* (the player) and *The Necromancer* (the villain). The player must play as the knight, controlling their moves and actions through the various rooms and perils of The Dark Fortress, collecting the weapon, shield, torch, and keys needed to gain access to and defeat The Necromancer in his chamber.

## Map:

East

North

West

East

South

West

East

West

East

West

The Grand Staircase: Upstairs from Main Hall, locked door at the top to Armory. Contains Shield hanging on the wall.

Hidden room: Contains the key to the armory upstairs.

Boss Room

The Great Lounge: The final room before the Necromancer’s Chambers. Only accessible with the Hero’s Sword. Contains Boss Key.

Armory: Only accessible if the Knight has the Key from the Hidden Room. Contains Hero’s Sword.

South

North

South

The Wine Cellar: contains Torch, downstairs from Main Hall, player can search to find Hidden Room.

North

Main Hall: A long-since inhabited grand entryway to the Keep. Crumbling marble floors leave only three paths remaining. South, down into the Wine Cellar. North, up the Grand Staircase, or East, to the Great Lounge, but this way is locked, and the keyhole seems to fit a sword much greater than your current one.

The Dark Courtyard (entry room): Starting area, contains description of the dark fort, and the black gate that leads inside.

## Pseudocode or Flowchart for Code to “Move Between Rooms”

## When player enters room ( Each Room has multiple variables, so can PRINT(room\_A), etc.)   
  
//DEFINE function GO for move to new location with Direction input given ## eg. GO(East)  
//DEFINE DESCRIPTION for each room ## eg DESCRIPTION(BossRoom)  
// PRINT DESCRIPTION of player’s location & inventory, items seen in room, directions to travel  
// INPUT for player’s action (‘Enter your action: ‘)

// IF action valid AND command to move to different room, THEN   
// IF desired direction contains new room THEN   
// IF new room LOCKED ## checks inventory list for key, then can GO, if not then can’t GO

// PRINT ‘Locked, key needed, check elsewhere!’

// ELSE

// GO to corresponding room

// ELSE IF action valid AND command to GET item, THEN

// GET item, add item to list with GET function call. (See Pseudocode for ‘Get an Item’ below)

// ELSE action not valid THEN  
 PRINT Error Message (Can’t do that! PRINT room DESCRIPTION again and continue from last point before error)

## Pseudocode or Flowchart for Code to “Get an Item”

//ASSIGN LIST to PLAYER INVENTORY ## create list of inventory items, begins with [] none in list.   
//ASSIGN LIST to ROOM INVENTORY ## create list of inventory items, begins with 1 in list for each room.

//DEFINE function GET for adding new item to PLAYER INVENTORY and remove from ROOM INVENTORY   
//DEFINE function CHECK for checking inventory for key item for locked door  
  
//INPUT for player’s action

// IF player INPUT GET item  
// IF item IN ROOM INVENTORY list for current room, THEN   
// GET(item) ## function call to add input item to player inventory list and remove from room list  
// ELSE PRINT ‘That’s not here, try again’  
  
  
// IF Room Door A == LOCKED, THEN   
// CHECK(Room\_Door\_A\_Key) ## checks for needed item in inventory upon seeing locked door

// ELSE no check needed, GO can execute without CHECK