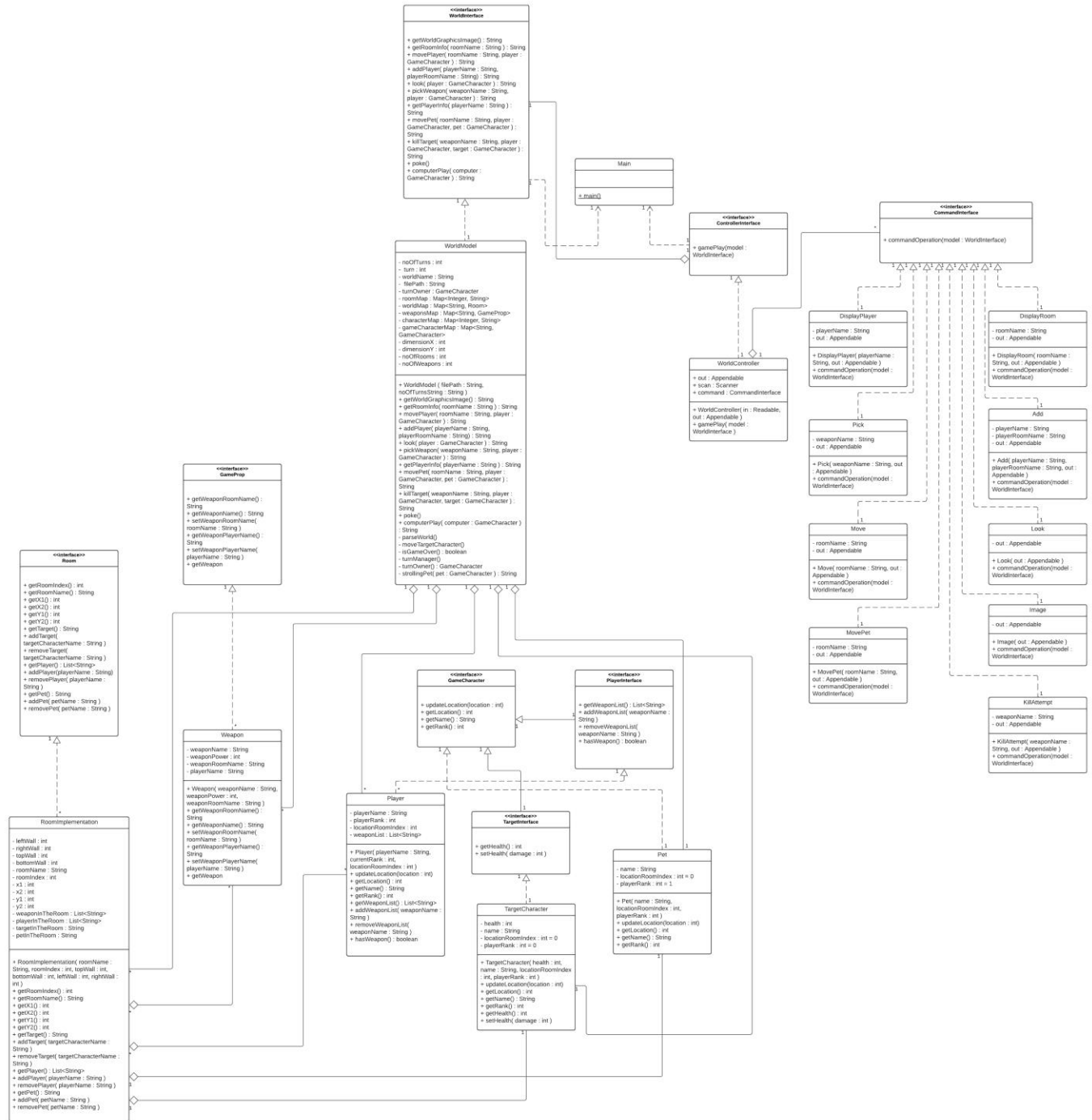# Milestone 3 Preliminary Design

Shreyas Terdalkar

UML Design Diagram:

Testing Plan:

1. Controller Testing using Mock Model

Test	Input	Expected Value
Testing addPlayer() method of the model being called by the controller for adding human controlled player	ADDPLAYER Shreyas Armory	INPUT : Player: Shreyas Room: Armory OUTPUT : 12345678
Testing displayRoomInfo() method of the model being called by the controller for displaying room details of the specified room	DISPLAYROOM Armory	INPUT : Room: Armory OUTPUT : 12345678
Testing displayPlayerInfo() method of the model being called by the controller for displaying player details of the specified player	DISPLAYPLAYER Shreyas	INPUT : Player : Shreyas OUTPUT : 12345678
Testing getWorldGraphicsImage() method of the model being called by the controller for displaying graphical representation of the world	IMAGE	INPUT : Image method called OUTPUT : 12345678
Testing movePlayer() method of the model being called by the controller for moving player from its current to room to its specified neighbour room	MOVE Billiard Room	INPUT : Player : Shreyas Room: Billiard Room OUTPUT : 12345678
Testing pickWeapon() method of the model being called by the controller for picking available weapon from its current room	PICK Billiard Cue	INPUT : Player : Shreyas Weapon : Billiard Cue OUTPUT : 12345678
Testing Look() method of the model being called by the controller for looking around its current room	LOOK	INPUT : Player : Shreyas Room: Armory OUTPUT : 12345678
Testing movePet() method of the model being called by the controller for moving the pet from current room to the specified room	MOVEPET Dining Hall	INPUT : Player : Shreyas Character : Fortune Room: Dining Hall OUTPUT : 12345678

Testing killTarget() method of the model being called by the controller for attempting to kill the Target using specified weapon	KILLTARGET Billiard Cue	INPUT : Player : Shreyas Weapon : Billiard Cue OUTPUT : 12345678
Testing poke() method of the model being called by the controller for attempting to kill the Target without any weapon	POKE	INPUT : Player : Shreyas OUTPUT : 12345678
Testing computerPlay() method of the model being called by the controller to give the computer player a turn to play	NA	INPUT : Computer is playing OUTPUT : 12345678

2. Model Testing

Test	Input	Expected Value
Looking around		
Test for no weapons in the current room	LOOK	Shreyas's Turn : Player Shreyas is in Dining Hall Neighbour rooms : [Kitchen, Armory, Tennessee Room, Drawing Room]
Test for one weapon in the current room	LOOK	Shreyas's Turn : Player Shreyas is in Kitchen Weapon/s in the room : Sharp Knife Neighbour rooms : [Dining Hall, Tennessee Room, ServantS' Quarters]
Test for multiple weapons in the current room	LOOK	Shreyas's Turn : Player Shreyas is in Kitchen Weapon/s in the room : Sharp Knife, Crepe Pan Neighbour rooms : [Dining Hall, Tennessee Room, ServantS' Quarters]
Test for another player in the current room	LOOK	Shreyas's Turn : Player Shreyas is in Kitchen Weapon/s in the room : Sharp Knife Other character/s in the room : Professor Neighbour rooms : [Dining Hall, Tennessee Room, ServantS' Quarters]
Test for multiple players in the current room	LOOK	Shreyas's Turn : Player Shreyas is in Kitchen Weapon/s in the room : Sharp Knife Other character/s in the room : Professor, Alex Neighbour rooms : [Dining Hall, Tennessee Room, ServantS' Quarters]

Test for computer player in the current room	LOOK	Shreyas's Turn : Player Shreyas is in Kitchen Weapon/s in the room : Sharp Knife Other character/s in the room : Professor, Computer Neighbour rooms : [Dining Hall, Tennessee Room, ServantS' Quarters]
Test for another player in the neighbour room	LOOK	Shreyas's Turn : Player Shreyas is in Kitchen Weapon/s in the room : Sharp Knife Other character/s in the room : Professor, Computer Neighbour rooms : [Dining Hall, Tennessee Room, Servants' Quarters] Alex is in Dining Hall
Test for multiple players in the neighbour room	LOOK	Shreyas's Turn : Player Shreyas is in Kitchen Weapon/s in the room : Sharp Knife Other character/s in the room : Computer Neighbour rooms : [Dining Hall, Tennessee Room, Servants' Quarters] Alex is in Dining Hall Professor is in Servants' Quarters
Test for computer player in the neighbour room	LOOK	Shreyas's Turn : Player Shreyas is in Kitchen Weapon/s in the room : Sharp Knife Neighbour rooms : [Dining Hall, Tennessee Room, Servants' Quarters] Alex is in Dining Hall Computer is in Tennessee Room Professor is in Servants' Quarters
Test for no neighbour rooms	LOOK	Shreyas's Turn : Player Shreyas is in Plaza Neighbour rooms : None
Test for one neighbour room	LOOK	Shreyas's Turn : Player Shreyas is in Piazza Neighbour rooms : [Carriage House] Alex is in Dining Hall Computer is in Tennessee Room Professor is in Servants' Quarters
Test for neighbour room with multiple weapons	LOOK	Shreyas's Turn : Player Shreyas is in Kitchen Weapon/s in the room : Sharp Knife Neighbour rooms : [Dining Hall, Tennessee Room, Servants' Quarters] Alex is in Dining Hall Computer is in Tennessee Room Professor is in Servants' Quarters

	LOOK	Shreyas's Turn :
		Player Shreyas is in Kitchen
		Weapon/s in the room : Sharp Knife
		Character/s in the room : Target
		Neighbour rooms : [Dining Hall, Tennessee Room, Servants' Quarters]
		Alex is in Dining Hall
Test for Target in the current room		Computer is in Tennessee Room
		Professor is in Servants' Quarters
	LOOK	Shreyas's Turn :
		Player Shreyas is in Kitchen
		Weapon/s in the room : Sharp Knife
		Neighbour rooms : [Dining Hall, Tennessee Room, Servants' Quarters]
		Alex is in Dining Hall
Test for Target in the neighbour room		Target is in Tennessee Room
		Professor is in Servants' Quarters
	LOOK	Shreyas's Turn :
		Player Shreyas is in Kitchen
		Weapon/s in the room : Sharp Knife
		Character/s in the room : Fortune
		Neighbour rooms : [Dining Hall, Tennessee Room, Servants' Quarters]
		Alex is in Dining Hall
Test for pet in the current room		Computer is in Tennessee Room
		Professor is in Servants' Quarters
	LOOK	Shreyas's Turn :
		Player Shreyas is in Kitchen
		Weapon/s in the room : Sharp Knife
		Neighbour rooms : [Dining Hall, Tennessee Room]
Test for pet in the neighbour room		Alex is in Dining Hall
		Target is in Tennessee Room
Moving pet		
	MOVEPET Dining Hall	
	DISPLAYR OOM Dining Hall	Pet moved to Dining Hall.
		Room Name : Dining Hall
Test for moving pet to the neighbour room		Neighbors : Trophy Room, Kitchen, Armory
		Character/s in the room : Professor, Fortune
Test for moving pet to non neighbour room	MOVEPET Piazza	Invalid input, please re-enter
Killing Target		

Test for attempting successful damage to the target using a weapon that the player had by incrementing turn to the next player and the target's health being reduced and the weapon getting removed from the game	KILL Billiard Cue DISPLAYROOM Billiard Room DISPLAYPLAYER Shreyas	Shreyas's turn: KILL Billiard Cue Damage successful! Doctor Lucky's health: 47 Professor's Turn: DISPLAYROOM Billiard Room Name of the room : Billiard Room Neighbours of the room : [Dining Hall, Drawing Room, Armory] Weapon/s in the room : None Player/s in the room : [Shreyas] Professor's Turn: DISPLAYPLAYER Shreyas Name of the player : Shreyas Location of the player : Billiard Room Player has weapon/s : None
Unsuccessful damage because of another player seeing from the neighbour room, turn being incremented, target's health not getting reduced, but weapon being removed from the world	KILL Billiard Cue DISPLAYROOM Billiard Room DISPLAYPLAYER Shreyas	Shreyas's turn: KILL Billiard Cue Damage unsuccessful! Doctor Lucky's health: 50 Professor's Turn: DISPLAYROOM Billiard Room Name of the room : Billiard Room Neighbours of the room : [Dining Hall, Drawing Room, Armory] Professor is in Armory Weapon/s in the room : None Player/s in the room : [Shreyas] Professor's Turn: DISPLAYPLAYER Shreyas Name of the player : Shreyas Location of the player : Billiard Room Player has weapon/s : Billiard Cue

Unsuccessful damage because the player doesnt have the specified weapon, turn not being incremented, target's health not getting reduced, weapon not being removed from the world, user asked for new input	KILL Sharp Knife DISPLAYROOM Billiard Room DISPLAYPLAYER Shreyas	Shreyas's turn: KILL Billiard Cue Incorrect input, please re-enter Shreyas's Turn: DISPLAYROOM Billiard Room Name of the room : Billiard Room Neighbours of the room : [Dining Hall, Drawing Room, Armory] Weapon/s in the room : None Player/s in the room : [Shreyas] Shreyas's Turn: DISPLAYPLAYER Shreyas Name of the player : Shreyas Location of the player : Billiard Room Player has weapon/s : Billiard Cue
Unsuccessful damage because of the another player seeing from the same room, turn being incremented, target's health not getting reduced, but weapon being removed from the world	KILL Billiard Cue DISPLAYROOM Billiard Room DISPLAYPLAYER Shreyas	Shreyas's turn: KILL Billiard Cue Damage unsuccessful! Doctor Lucky's health: 50 Professor's Turn: DISPLAYROOM Billiard Room Name of the room : Billiard Room Neighbours of the room : [Dining Hall, Drawing Room, Armory] Professor is in Billiard Room Weapon/s in the room : None Player/s in the room : [Shreyas, Professor] Professor's Turn: DISPLAYPLAYER Shreyas Name of the player : Shreyas Location of the player : Billiard Room Player has weapon/s : Billiard Cue

Unsuccessful damage because the player is not in the same space as the target, turn not being incremented, target's health not getting reduced, weapon not being removed from the world, user asked for new input	KILL Billiard Cue DISPLAYROOM Billiard Room DISPLAYPLAYER Shreyas	Shreyas's turn: KILL Billiard Cue Target is not in Billiard Room Incorrect input, please re-enter Shreyas's Turn: DISPLAYROOM Billiard Room Name of the room : Billiard Room Neighbours of the room : [Dining Hall, Drawing Room, Armory] Weapon/s in the room : None Player/s in the room : [Shreyas] Shreyas's Turn: DISPLAYPLAYER Shreyas Name of the player : Shreyas Location of the player : Billiard Room Player has weapon/s : Billiard Cue
Successful damage being done by the computer player by incrementing turn to the next player and the target's health being reduced and the weapon getting removed from the game	NA	Computer's turn: Damage successful! Doctor Lucky's health: 47 Professor's Turn: DISPLAYROOM Billiard Room Name of the room : Billiard Room Neighbours of the room : [Dining Hall, Drawing Room, Armory] Weapon/s in the room : None Player/s in the room : [Computer] Professor's Turn: DISPLAYPLAYER Computer Name of the player : Computer Location of the player : Billiard Room Player has weapon/s : None

		Shreyas's turn: POKE Damage successful! Doctor Lucky's health: 49 Professor's Turn: DISPLAYROOM Billiard Room Name of the room : Billiard Room Neighbours of the room : [Dining Hall, Drawing Room, Armory] Weapon/s in the room : None Player/s in the room : [Shreyas] Professor's Turn: DISPLAYPLAYER Shreyas Name of the player : Shreyas Location of the player : Billiard Room
Successful damage by poking in the eye by incrementing turn to the next player and the target's health being reduced	POKE	Player has weapon/s : None
Game over		
After enough damages, target's health becomes zero, game ends	POKE	Target is dead. Game Over!
Maximum no of turns limit reached	LOOK	Maximum no of turns reached. Game Over!
Additions to Milestone 2 requirements in Milestone 2		
Adding Target's pet during parsing of the world specification and creation of the world at room 0 along with the target	DISPLAYROOM Armory	Name of the room : Armory Neighbours of the room : [Dining Hall, Drawing Room, Billiard Room] Weapon/s in the room : [Revolver] Character/s in the room : Target, Fortune
Adding player displays information of their current room details and target information	ADDPLAYER Shreyas Armory	Name of the room : Armory Neighbours of the room : [Dining Hall, Drawing Room, Billiard Room] Weapon/s in the room : [Revolver] Target is in Armory Character/s in the room : Shreyas , Doctor lucky, Fortune
Adding computer player displays information of their current room details and target information	ADDCOMPUTER Armory	Name of the room : Armory Neighbours of the room : [Dining Hall, Drawing Room, Billiard Room] Weapon/s in the room : [Revolver] Target is in Armory Character/s in the room : Computer , Doctor lucky, Fortune
Information about the Target moving in the world is being	PICK Revolver	PICK Revolver Shreyas has picked Revolver Target moved to Billiard Room Computer's turn :

displayed at the end of every turn to the user		
Information of pet moving in the world using DFS algorithm after every turn	PICK Revolver	PICK Revolver Shreyas has picked Revolver Target moved to Billiard Room Fortune moved to Carriage House Computer's turn :

Milestone 2 tests

DISPLAY ROOM COMMAND:
Display information about a specified space in the world.

Valid Test with all fields available	DISPLAY BILLIARD ROOM	ROOM NAME : BILLIARD ROOM WEAPON IN THE ROOM: BILLIARD CUE NEIGHBOURS: TROPHY ROOM, DINING HALL, ARMORY PEOPLE IN THE ROOM: DOCTOR LUCKY, PLAYERONE
Invalid Test for room not in the World	DISPLAY PLAZA	IllegalArgumentException
Test for room having no weapon	DISPLAY SERVANT'S QUARTERS	ROOM NAME : SERVANT'S QUARTERS WEAPON IN THE ROOM: NONE NEIGHBOURS: TROPHY ROOM, DINING HALL, ARMORY PEOPLE IN THE ROOM: DOCTOR LUCKY, PLAYERONE
Test for room having no neighbours	DISPLAY PLAZA	IllegalArgumentException
Test for room having no characters	DISPLAY FOYER	ROOM NAME : FOYER WEAPON IN THE ROOM: REVOLVER NEIGHBOURS: TENNESSEE ROOM, DINING HALL, ARMORY PEOPLE IN THE ROOM: NONE
Test for room having only target character	DISPLAY LILAC ROOM	ROOM NAME : LILAC ROOM WEAPON IN THE ROOM: SHARP KNIFE NEIGHBOURS: TROPHY ROOM, DINING HALL, FOYER PEOPLE IN THE ROOM: DOCTOR LUCKY
Test for room having only player	DISPLAY LIBRARY	ROOM NAME : LIBRARY WEAPON IN THE ROOM: CHAIN SAW NEIGHBOURS: TROPHY ROOM, DINING HALL PEOPLE IN THE ROOM: PLAYERONE

CREATE IMAGE COMMAND:
Create a graphical representation of the world map and provide the ability to save the graphical representation to a file as a PNG file.

Valid Test for graphics image	mansion.txt	image.png
Invalid Test for image file not found	mansion.txt	FileNotFoundException

ADD PLAYER COMMAND:		
Add a human-controlled player to the game.		
Valid Test for creating player	ADD PLAYER ONE	PLAYER ONE ADDED
ADD COMPUTERPLAYER COMMAND:		
Add a computer-controlled player to the game.		
Valid Test for creating computer player	ADD COMPUTER PLAYER	COMPUTER PLAYER ADDED
MOVE COMMAND:		
Move a player.		
Valid Test for moving player	MOVE ONE LILAC ROOM	LOCATION : LILAC ROOM
Valid Test for computer player moving automatically on its turn	NA	LOCATION : LIBRARY
Invalid Test for moving to non neighbour room	MOVE ONE FOYER	IllegalArgumentException
PICK COMMAND:		
Allow a player to pick up an item.		
Valid Test for picking item from current room	PICK CHAIN SAW	WEAPON TAKEN : CHAINSAW
Invalid Test for room with no item	PICK BILLIARD CUE	IllegalArgumentException
Invalid Test for item already picked	PICK SHARP KNIFE	IllegalArgumentException
DISPLAY PLAYER COMMAND:		
Display a description of a specific player.		
Valid Test for all fields present	DISPLAY PLAYER ONE	PLAYER : ONE LOCATION : BILLIARD ROOM WEAPON TAKEN : BILLIARD CUE
Valid Test for player with no weapon	DISPLAY PLAYER ONE	PLAYER : ONE LOCATION : BILLIARD ROOM WEAPON TAKEN : NONE
Invalid Test for player not in the World	DISPLAY PLAYER HERO	IllegalArgumentException
Limit the maximum number of turns allowed		

Valid Test for no of turns exceeding limit	LOOK	GAME IS OVER! TURNS LIMIT REACHED
Others		
Valid Test for input being readable and output being appendable	mansion.txt	WELCOME TO DOCTOR LUCKY'S WORLD
Invalid Test for input being readable and output being appendable	mansion.txt	IllegalStateException
Tests for Model		
General		
Model object is null	model == null	IllegalArgumentException
Model object is readable	mansion.txt	WELCOME TO DOCTOR LUCKY'S WORLD
Parsing World specification correctly	mansion.txt	WELCOME TO DOCTOR LUCKY'S WORLD
Overlapping spaces	mansion.txt	IllegalArgumentException
Rooms with same names	mansion.txt	IllegalArgumentException
Weapons with same name	mansion.txt	IllegalArgumentException
Test getWorldGraphicsImage()		
Valid Test for graphics image	mansion.txt	image.png
Invalid Test for image file not found	mansion.txt	FileNotFoundException
Test getNeighbour()		
Top Left Room	LANCASTER ROOM	["LILAC ROOM","SERVANTS' QUARTERS"]
Top Right Room	NURSERY	["MASTER SUITE","LIBRARY"]
Bottom Left Room	CARRIAGE HOUSE	["WINTER GARDEN"]
Botton Right Room	GREEN HOUSE	["HEDGE MAZE"]
Middle Room	DINING HALL	["TENNESSEE ROOM","PARLOR","KITCHEN","WINE CELLAR","DRAWING ROOM","ARMORY","BILLIARD ROOM","TROPHY ROOM"]
Middle Room	PARLOR	["SERVANTS' QUARTERS","DINING ROOM","KITCHEN","TENNESSEE ROOM"]
Incorrect Input Room	ATTIC	IllegalArgumentException
Test getRoomInfo()		

Room 1	BILLIARD ROOM	"ROOM NAME : BILLIARD ROOM, WEAPON IN THE ROOM : BILLIARD CUE, NEIGHBOURS : TROPHY ROOM, DINING HALL, ARMORY PEOPLE IN THE ROOM : DOCTOR LUCKY"
Room 2	FOYER	"ROOM NAME : FOYER, WEAPON IN THE ROOM : NO WEAPON FOUND, NEIGHBOURS : DRAWING ROOM, PIAZZA PEOPLE IN THE ROOM : PLAYERONE"
Incorrect Input Room	CLINIC ROOM	IllegalArgumentException
Valid Test with all fields available	DISPLAY BILLIARD ROOM	ROOM NAME : BILLIARD ROOM WEAPON IN THE ROOM: BILLIARD CUE NEIGHBOURS: TROPHY ROOM, DINING HALL, ARMORY PEOPLE IN THE ROOM: DOCTOR LUCKY, PLAYERONE
Invalid Test for room not in the World	DISPLAY PLAZA	IllegalArgumentException
Test for room having no weapon	DISPLAY SERVANT'S QUARTERS	ROOM NAME : SERVANT'S QUARTERS WEAPON IN THE ROOM: NONE NEIGHBOURS: TROPHY ROOM, DINING HALL, ARMORY PEOPLE IN THE ROOM: DOCTOR LUCKY, PLAYERONE
Test for room having no neighbours	DISPLAY PLAZA	IllegalArgumentException
Test for room having no characters	DISPLAY FOYER	ROOM NAME : FOYER WEAPON IN THE ROOM: REVOLVER NEIGHBOURS: TENNESSEE ROOM, DINING HALL, ARMORY PEOPLE IN THE ROOM: NONE
Test for room having only target character	DISPLAY LILAC ROOM	ROOM NAME : LILAC ROOM WEAPON IN THE ROOM: SHARP KNIFE NEIGHBOURS: TROPHY ROOM, DINING HALL, FOYER PEOPLE IN THE ROOM: DOCTOR LUCKY
Test for room having only player	DISPLAY LIBRARY	ROOM NAME : LIBRARY WEAPON IN THE ROOM: CHAIN SAW NEIGHBOURS: TROPHY ROOM, DINING HALL PEOPLE IN THE ROOM: PLAYERONE
Test moveTargetCharacter()		
Increment once	move()	BILLIARD ROOM
Increment six times	move() six times	FOYER
Test movePlayer()		
Valid Test for moving player	MOVE ONE LILAC ROOM	LOCATION : LILAC ROOM
Valid Test for computer player moving	NA	LOCATION : LIBRARY

automatically on its turn		
Invalid Test for moving to non neighbour room	MOVE ONE LIBRARY	IllegalArgumentException

Test getTurn()

Valid Test for no of turns exceeding limit	NA	GAME IS OVER! TURNS LIMIT REACHED
Playerone's turn	NA	PLAYERONE'S TURN
Computer Player's turn	NA	COMPUTER'S TURN

Test addPlayer()

Valid Test for creating player	ADD PLAYER ONE	PLAYER ONE ADDED
Valid Test for creating computer player	ADD PLAYER ONE	PLAYER ONE ADDED

Test look()

Valid Test for getting neighbours	LOOK	NEIGHBOURS : TROPHY ROOM, DINING HALL, ARMORY

Test pickWeapon()

Valid Test for picking item from current room	PICK CHAIN SAW	WEAPON TAKEN : CHAINSAW
Invalid Test for room with no item	PICK BILLIARD CUE	IllegalArgumentException
Invalid Test for item already picked	PICK SHARP KNIFE	IllegalArgumentException

Test getPlayerInfo()

Valid Test for all fields present	DISPLAY PLAYER ONE	PLAYER : ONE LOCATION : BILLIARD ROOM WEAPON TAKEN : BILLIARD CUE
Valid Test for player with no weapon	DISPLAY PLAYER ONE	PLAYER : ONE LOCATION : BILLIARD ROOM WEAPON TAKEN : NONE
Invalid Test for player not in the World	DISPLAY PLAYER HERO	IllegalArgumentException

Others

For input file not being of .txt extension	image.png	FileFormatException

Test for displaying room details for room containing pet	DISPLAYROOM Armory	Name of the room : Armory Neighbours of the room : [Dining Hall, Drawing Room, Billiard Room] Weapon/s in the room : [Revolver] Character/s in the room : Target, Fortune
test that verifies that your implementation only gives each player one action at a time	PICK Revolver	Shreyas's turn : PICK Revolver Shreyas has picked Revolver Computer's turn :
test that verifies that your implementation alternates turns between players in the order they were added	PICK Revolver	Shreyas's turn : PICK Revolver Shreyas has picked Revolver Computer's turn :
Computer player test	NA	Computer's turn : Computer has picked Billiard Cue

3. Individual class testing

Test	Input	Expected Value
Testing room implementation		
Valid test for creation of room using valid arguments	"0, Armory, 22, 19, 23, 26"	"Room Index : 0, Room Name : Armory, TopWall : 22, LeftWall : 19, BottomWall : 23, RightWall : 26"
Invalid test while creating a room for invalid/null arguments	" , Armory, 22, 19, 23, 26" "0, , 22, 19, 23, 26" "0, Armory, , 19, 23, 26" "0, Armory, 22, , 23, 26" "0, Armory, 22, 19, , 26" "0, Armory, 22, 19, 23, " " 57, Armory, 22, 19, 23, 26" "0, @#$%, 22, 19, 23, 26" "0, Armory, 66, 19, 23, 26" "0, Armory, 22, 98, 23, 26" "0, Armory, 22, 19, -9, 26" "0, Armory, 22, 19, 23, 0.8"	IllegalArgumentException

Valid test for testing of all getter methods	"0, Armory, 22, 19, 23, 26"	"Room Index : 0, Room Name : Armory, TopWall : 22, LeftWall : 19, BottomWall : 23, RightWall : 26 Target : Doctor Lucky Player : Computer Pet : Fortune Weapon : Revolver"
Valid test for testing of all setter methods	1. Creation "0, Armory, 22, 19, 23, 26" 2. Add Target "Doctor Lucky" 3. Remove Target "Doctor Lucky" 4. Add Player "Shreyas" 5. Remove Player "Shreyas" 6. Add Pet "Fortune" 7. Remove Pet "Fortune"	1. "Room Index : 0, Room Name : Armory, TopWall : 22, LeftWall : 19, BottomWall : 23, RightWall : 26" 2. "Doctor Lucky" 3. Null 4. "Shreyas" 5. Null 6. "Fortune" 7. Null
Invalid test for testing invalid/null arguments to setter methods	1. Creation "0, Armory, , 19, 23, 26" 2. Add Target "" 3. Remove Target "Doctor Loki" 4. Add Player 123 5. Remove Player Null 6. Add Pet Null 7. Remove Pet "#$%"	IllegalArgumentException
Testing player implementation		
Valid test for creation of player using valid arguments	"Shreyas, 2, 0"	"Player Name : Shreyas Player Rank : 2 Player room index : 0"

Invalid test while creating a player for invalid/null arguments	"$%^, 2, "	IllegalArgumentException
Valid test for testing of all getter methods	"Shreyas, 2, 0"	1. "Shreyas, 2, 0" 2. "Shreyas" 3. 2 4. 0 5. [Revolver]
Valid test for testing of all setter methods	1. Creation - "Shreyas, 2, 0" 2. Update Location - 4 3. Add weapon - [Revolver] 4. Remove weapon - [Revolver]	1. "Player Name : Shreyas Player Rank : 2 Player room index : 0" 2. 4 3. [Revolver] 4. Null
Invalid test for testing invalid/null arguments to setter methods	1. Creation - " , 2, 0" 2. Update Location - 46 3. Add weapon - [^&*] 4. Remove weapon - [Revolver]	IllegalArgumentException
Testing weapon implementation		
Valid test for creation of weapon using valid arguments	"Sharp Knife, 3, 8"	"Weapon name - Sharp Knife Kill Power - 3 Location - Kitchen"
Invalid test while creating a weapon for invalid/null arguments	" , 3, 8"	IllegalArgumentException
Valid test for testing of all getter methods	"Sharp Knife, 3, 8"	"Weapon name - Sharp Knife Kill Power - 3 Location - Kitchen"
Valid test for testing of all setter methods	1. creation - "Sharp Knife, 3, 8" 2. set weapon location - Null 3. set player name - Shreyas	1. "Weapon name - Sharp Knife Kill Power - 3" 2. "Location - Null" 3. "Player - Shreyas"
Invalid test for testing invalid/null arguments to setter methods	1. creation - "Sharp Knife, 3, 8" 2. set weapon location - Null 3. set player name - Null	IllegalArgumentException
Testing target implementation		
Valid test for creation of target using valid arguments	"Doctor Lucky, 50, 0, 0"	"Name - Doctor Lucky Health - 50 Location - Armory Player rank - 0"

Invalid test while creating a target for invalid/null arguments	" , 50, 0, 0"	IllegalArgumentException
Valid test for testing of all getter methods	"Doctor Lucky, 50, 0, 0"	1. "Name - Doctor Lucky" 2. "Health - 50" 3. "Location - Armory" 4. "Player rank - 0"
Valid test for testing of all setter methods	1. update location - 2 2. set health - 3	1. "Location - Dining Hall" 2. "Health - 47"
Invalid test for testing invalid/null arguments to setter methods	1. update location - 90 2. set health - 51	IllegalArgumentException
Testing pet implementation		
Valid test for creation of pet using valid arguments	"Fortune, 1, 0"	"Name : Fortune Location : Armory Player rank : 1"
Invalid test while creating a pet for invalid/null arguments	" , 1, 0"	IllegalArgumentException
Valid test for testing of all getter methods	"Fortune, 1, 0"	1. "Name : Fortune" 2. "Location : Armory" 3. "Player rank : 1"
Valid test for testing of all setter methods	1. Update Location - 1	1. "Location - Billiard Room"
Invalid test for testing invalid/null arguments to setter methods	1. Null	IllegalArgumentException
Command classes implementation		
Valid test for creation of command using valid arguments	valid arguments for respective commands	"Command executed successfully"
Invalid test while creating a command for invalid/null arguments	Null	IllegalArgumentException