## **Test Matrix**

Date	Test	Pass or Fail	Actual Result	Suggestion			
	Normal Situations						
15/01/2017	Execute program	PASS					
17/01.2017	Intro screen shows up	PASS					
16/01/2017	FrameSetup's frame title set to "Somnium"	PASS	Two frames show up, however in the code if I try to start only RPGGameTest.frame instance, the key listener does not function				
17/01/2017	Instructions show up when pressing 'i'	PASS		Add spaces between punctuation			
17/01/2017	Room shows up when pressing any other key	PASS					
17/01/2017	Protagonist moves along with key presses	PASS					
16/01/2017	Enemies move according to their movement patterns	FAIL	Disappearing when close to wall	Double check how the icon is set and see if it is checking the next row and column or current row and column to prevent collision			
17/01/2017	Enemies move according	FAIL	Not appearing	An error is because the			

	to their movement patterns			enemyTimer is firing signals the moment the application starts
17/01/2017	Enemies move according to their movement patterns	FAIL	Still not appearing	Possibly it is caused by a method in the room trying to stop a sound that isn't playing? Currently checking line 451. Try moving performMove method call to inside the if statements in keyPressed
17/01/2017	Enemies move according to their movement patterns	FAIL	Still not appearing	Somehow performMove thinks a boss is always beside the protagonist? An else in the else if was missing for the message decision
17/01/2017	Enemies move according to their movement patterns	FAIL	Enemies still not appearing but there is no longer any issues with the playSound method	The console is displaying that the enemies are being added. Check to see the status of enemyTimer and if it is signalling
17/01/2017	Enemies move according to their movement patterns	FAIL	The timer did start but the enemies still aren't appearing	Check to see how the timer signals are being handled
17/01/2017	Enemies move according to their movement patterns	FAIL	Enemies not appearing and the timer isn't sending signals	Check if the timer started

17/01/2017	Enemies move according to their movement patterns	FAIL	After removing the statement that stopped the enemyTimer from firing signals the moment the application starts, it shows that testing.Enemy[,0,0,0x0,invalid,alignmentX=0.0,alignmentY=0.0,border=,flags=8388608,m aximumSize=,minimumSize=,preferredSize=,defaultIcon=javax.swing.ImageIcon@5a4ae c0e,disabledIcon=,horizontalAlignment=LEA DING,horizontalTextPosition=TRAILING,iconTextGap=4,labelFor=,text=,verticalAlignment=CENTER,verticalTextPosition=CENTER] is being moved	Check the Enemy method
17/01/2017	Enemies move according to their movement patterns	FAIL	Enemy not appearing and same sound issue occurring	performMove is still being called by actionlistener despite the enemy having moved or not. Call performMove only if the enemy changed positions
17/01/2017	Enemies move according to their movement patterns	FAIL	Enemy not appearing and same sound issue occurring	Check enemyLoader.
17/01/2017	Enemies move according to their movement patterns	FAIL	actionPerformed calls the performMove method then an error occurs, halting all enemy movement. Still no enemies appearing	Check if the mover is protagonist first in the if statement's conditions as it is stopping where it would if the protagonist touched the boss
17/01/2017	Enemies move according to their movement patterns	FAIL	The enemy included in the arguments of the performMove call is being detected by performMove as the protagonist. And because there is no sound from in the room	Find out how (mover==IntroScreen.prot agonist &&

			class playing, an error is thrown, stopping all enemy movement	room[mover.getNextRow() ][mover.getNextColumn()] =='B'    room[mover.getRow()][mo ver.getColumn()]=='B' &&  Battle.gameState==0    FinalBossBattle.gameStat e==0) could be true when calling performMove with an enemy. Possibly print the room array
17/01/2017	Enemies move according to their movement patterns	FAIL	Moved across the room and all other functions work except when I touched the door, the final boss battle started	Check to see what mover is being sent to performMove. Also catch the error and see what happens.
17/01/2017	Enemies move according to their movement patterns	FAIL	So apparently the enemy being sent to the performMove class is detected as the protagonist and touching the boss	Check where the boss' position is being set
17/01/2017	Enemies move according to their movement patterns	FAIL	None of the conditions in the structure that determines when to start the boss battle are working	Start the timer later?
17/01/2017	Enemies move according to their movement patterns	PASS	The enemies move as expected (copied and pasted messy code from previous version of game that worked)	

17/01/2017	Protagonist stops at wall	PASS	
17/01/2017	Message appears in a dialog box	PASS	
17/01/2017	Paper disappears after clicking OK on dialog boxes	PASS	Add a wasRead boolean attribute to the Paper class to prevent player from bumping into invisible messages
17/01/2017	Battle starts when contact made with enemy	PASS	
17/01/2017	Dialog pops up with message "You have encountered an enemy!"	PASS	
17/01/2017	Dialog pops up with message of protagonist's health points	PASS	
17/01/2017	Dialog pops up with message of enemy's health points	PASS	
17/01/2017	Dialog pops up prompting the user's command choice	PASS	
17/01/2017	When the user selects Attack, another dialog pops up prompting the type of attack	PASS	

17/01/2017	When the user selects the punch attack, a dialog pops up asking when they want to punch	PASS	
17/01/2017	When the user selects the slingshot attack, a dialog pops up showing if they have enough battle points or not	PASS	
17/01/2017	When the user has enough battle points for the slingshot attack, a dialog pops up asking when they want to release	PASS	
19/01/2017	When the user doesn't have enough battle points, they are brought back to the dialog that prompts for the type of attack	PASS	
17/01/2017	When the user selects the flail attack, a dialog pops up showing if they have enough battle points or not	PASS	
17/01/2017	When the user has enough battle points for the flail attack, a dialog pops up asking when they want to swing	PASS	

17/01/2017	After clicking the dialog prompting the user when they want to attack, another dialog pops up showing how much damage they inflicted on the enemy, based on the hit meter	PASS	
17/01/2017	When it is the enemy's turn, a random number between 1 and 3 is generated for the attack power	PASS	
17/01/2017	When the user selects Defend, a number based on the hit meter is decremented from the enemy's attack power	PASS	
17/01/2017	When the user selects run away, based on the hit meter, a dialog pops up showing whether the protagonist was successful in running away or not	PASS	
17/01/2017	Battle cycle repeats until either the enemy dies, or the protagonist dies	PASS	
19/01/2017	When the protagonist's health points reach 0, a	PASS	

	dialog pops up showing that the protagonist died and the game exits			
17/01/2017	When the enemy's health points reach 0, a dialog pops up showing that the user won the battle	PASS		
17/01/2017	After the user wins a battle, they are brought back to the room they were in	FAIL	When trying the fight the other enemy in room 1, there is a lot of lag and then both the room music and battle music play at the same time	-Check what the gamestate is set to -Check all methods where playSound is called and see if playSound("STOP","") is also called -Sometimes enemies stick, set all their sprites invisible when entering and visible upon exit
17/01/2017	If the user touches the door, they are brought to the next room	FAIL	The room music from the previous room is still being played with the current room's music	Check to see if it would be better to call FrameSetup.playSound() from switchRooms() or call the music once room 2 is added
17/01/2017	After the user wins a battle, they are brought back to the room they were in	PASS	Much less lag and the music is fine	
17/01/2017	If the user touches the	PASS		

	door, they are brought to the next room			
17/01/2017	Collide with Follower enemy and see the post-Battle process is the same	FAIL	The enemy does not seem to be set to the dead enemy. The user is stuck in a loop of constantly fighting the enemy even though its health points are below 0	Double check how dead enemies are assigned
17/01/2017	Collide with Follower enemy and see the post-Battle process is the same	FAIL	The enemy does not seem to be set to the dead enemy. The user is stuck in a loop of constantly fighting the enemy even though its health points are below 0	Disable the Follower enemy type until more time can be spent on solving this issue
18/01/2017	Enemies continue on with their movement just as before after the battle	FAIL	It seems that after the battle, the sprite borrowed from the room for the battle isn't resized back to 19 by 19  After first battle, next enemy just walked through protagonist. Also the virtual machine ran out of memory.	Scale the images in the enemy movement method  Check to see if the room music is actually being stopped. Clear the audioInputStream when STOP is sent to playSound. If there still is a problem, it's a problem with the school's computer's heap space. Surround with a try/catch block.
18/01/2017	Enemies continue on with their movement just as before after the battle (changed clip.stop to clip.close to prevent	FAIL	Both enemies are replaced with dead enemies in room 1 after only beating 1	Remove the for loop that makes the enemies invisible when a battle starts and see where the enemies are going

	memory errors and ensured that enemies will be visible after battle)			
18/01/2017	Enemies continue on with their movement just as before after the battle (changed clip.stop to clip.close to prevent memory errors and ensured that enemies will be visible after battle)	FAIL	The cell set to the enemy before the battle remains until after the battle the enemy runs over the old sprite, replacing it with the floor sprite	Put back the for loops and only play with the sprites, not the enemy movement timers before and after the battle.  Wrong statements used to replace sprites in the room
18/01/2017	Enemies continue on with their movement just as before after the battle (changed clip.stop to clip.close to prevent memory errors and ensured that enemies will be visible after battle)	PASS	java.lang.NullPointerException occurs but the other enemy in room 1 moves normally after battle now	Keep note of this for later, possibly the dead enemy still moving
19/01/2017	When the user touches the boss, a dialog pops up showing "You have encountered the boss!"	PASS		
19/01/2017	The protagonist's turn works the same except the enemy is referred to as the boss now and the protagonist always trips when trying to run away	PASS		

19/01/2017	The boss' attack is chosen at random by the computer	PASS	
19/01/2017	If the boss' attack is punch, 1 to 3 damage is inflicted upon protagonist	PASS	
19/01/2017	If the boss' attack is jump, 3 to 6 damage is inflicted upon protagonist	PASS	
19/01/2017	If the boss' attack is the fire one, 10 damage is inflicted upon protagonist	PASS	
19/01/2017	If the boss' attack is defend, the protagonist's attack power next turn is decremented by 5	PASS	
19/01/2017	A dialog pops up showing the protagonist's health points after the boss' attack	PASS	
19/01/2017	When the protagonist's health points reach 0, a dialog pops up showing that the protagonist died and the game exits	PASS	
19/01/2017	When it is the friend's turn, a dialog pops up showing the number of enemies	PASS	

	that were actually friends that the protagonist did not kill			
19/01/2017	With each friend the protagonist did not kill, a dialog pops up showing each friend's damage on the boss	PASS		
19/01/2017	Each friend's attack power is between 6 and 10	PASS		
19/01/2017	After all friends have attacked, a dialog pops up showing the total damage the friends caused to the boss	PASS		
19/01/2017	When the boss dies, the user will be brought to the ending	PASS		
19/01/2017	The ending animation works	PASS		
19/01/2017	All sounds work	FAIL	Room music continues to play during the final battle with the boss battle music. There was a NullPointerException when trying to stop the room music	In performMove, if room music is playing from FrameSetup, it isn't being stopped before the boss battle
17/01/2017	Sprites appear in dialog boxes	PASS		

19/01/2017	Go through door in room 2	FAIL	It seems that an invisible enemy has encountered the user and started a battle. This does not trigger the enemy movement to stop, which causes the user to another two battles on top of that current battle	Check if the enemy sprite location refresher in the room isn't off or anything
19/01/2017	Kill a friend and see if the number of friends in the boss battle are different	PASS		
Extreme Situations				
	Aggressively hit arrow keys to attempt to go through walls and locked doors	PASS		
	Aggressively hit keys on the intro screen	FAIL	Too many instances of the room start that the application crashes	Remove the key listener in the key pressed method
	Keep trying to use attacks requiring battle points when user doesn't have enough and see if the system keeps going through the loop	PASS	Did this for 2 minutes	