

# Requirement testing

P ( performance requirements), E (external interface requirements), F (functional requirements), and N (non-functional requirements).

ID	Requirement	Fit criteria	Pass/Fail	Tests that satisfy this requirement
P1	The game must run on Windows 10 in Java.	P1.1 - The computer boots into Windows 10.	Pass	N/A
		P1.2 - Java is installed on the computer.	Pass	N/A
		P1.3 - The source code is written in Java.	Pass	N/A
P2	The game must run smoothly on the university computers.	P2.1 - The game runs at a minimum of 30 frames per second at all times.	Pass	See tested 5.2, never during testing was a sub 30 frame rate noticeable.
		P2.2 - The game responds to user to input within 25ms.	Pass	10.x all concern this requirement and most pass but we could not measure response time. However, there is no noticeable delay.
E1	The user must be able interact with the system using an input system available to university computers.	E1.1 - The user can navigate the menus.	Pass	See UI black-box tests 6.x, 7.x, 8.x
		E1.2 - user is able to move their character.	Pass	10.3
E2	The system must provide feedback to the user.	E2.1 - There must be some visual output from the system.	Pass	5.1 the DesktopLauncher takes the user to the menu.
F1	The game must be split up into six locations (different stages) which each have a few waves of zombies.	F1.1 - The game returns you to the stage select screen once you complete a stage.	Pass	9.6
		F1.2 - Zombies are spawned at the start of each wave.	Pass	Zombies must have been spawned for test 9.8 to pass.
F2	The game must get progressively more difficult.	F2.1 - More zombies are spawned in later waves and stages.	Pass	9.8
		F2.2 - More difficult zombie types are spawned at later waves and stages.	Pass	12.1, 12.2
F3	There must be three different player types the user can choose	F3.1 - The different player types have different stats. e.g. run speed, hit points	Pass	7.7, 7.8, 7.9

	to play as with different abilities.	F3.2 - The different player types have special abilities. e.g weapons, armour	Pass	9.10. Special player abilities have been added to the game
F4	There must be at least 3 zombie types (based on societies) with different abilities.	F4.1 - The different zombie types have different stats. e.g. run speed, hit points F4.2 - The different zombie types have special abilities. e.g weapons, armour F4.3 - Each zombie type must reference a university society. (Zombie types of inherited game didn't do this.)	Pass	Check testing ID
F5	There must be a mini game, completely different from the main game.	F5.1 - The mini-game has a different objective to the main game. F5.2 - It is playable from the main menu.	Pass Pass	11.1
F6	There must be at least five different power-ups which are sometimes dropped when a wave is completed.	F6.1 - One power-up is dropped at the end of every wave. F6.2 - When a power-up is dropped it is selected randomly from all the power-ups.	Pass Pass	9.9  See test 9.9, as far as we can tell the random selection is functioning well.
F7	There must be two bosses. One half way through the game and one at the end.	F7.1 - The third and sixth stage finish with a boss.	Pass	12.2
F8	The game must be able to be saved and then reloaded at any time between levels.	F8.1 - The game state is encoded into text to be stored in a plain text file. F8.2 - Loading a game save returns the game to the exact state it was in when it was saved.	Pass Pass	7.2, 7.3  We have interpreted this to mean that the unlocking of levels is saved. See test 7.2, 7.3.
F9	The zombies must seek out the player and do damage when they are within range and the player is not a zombie.	F9.1 - The player loses a number of hit points depending on the zombie type. F9.2 - The player loses the number hit points every second the zombie is within a distance of 20 from the player.	Pass Pass	12.1  3.x are concerned with a zombie doing damage to a player depending on the range and the cooldown time on the zombies attack. All tests pass.
F10	The player should do damage to a zombie or non-zombie when they are in range, are not in the same zombie state and the user attacks in the	F10.1 - The zombie character loses a number of hit points depending on the weapon the player is using.  F10.2 - The zombie character	Pass Pass	7.7, 7.8, 7.9 detail the different player types. The players have different attack damage stats as a result of the weapon that each player holds.  2.x test the players attack method

	correction direction. Where zombie states are zombie or non-zombie.	loses a number of hit points when the user clicks in the direction of the zombie character as long as it is within the range of the weapon. Range represented as a sector.		on a zombie, all tests pass. 10.2 ensures that the
F11	When the player dies they become a zombie. They then continue the level as a zombie.	F11.1 When player health is zero they become a zombie and their objectives changed to accomodate this. F11.2 After completing the level as a zombie, the zombies overrun the university.	Pass  Pass	9.13, 9.14
F12	Non-zombie characters must be added to the game.	F12.1 Zombies should be able to attack non-zombies as well as the player. When a non-zombie dies they become a zombie. F12.2 There should be a cure item that will cure zombies within an area when picked up. F12.3 Non-zombies left at the end of a level will improve player score	Pass  Pass  Pass	9.16,9.17  9.18  9.19
N1	The game must be easy to learn to play.	N1.1 - There is a controls option in the user manual. N1.2 - The game starts with a tutorial mission.	Pass  Pass	N/A  9.11 tests that tutorial text is shown at the beginning of the game
N2	The user must clear all stages and bosses in order to complete the game.	N2.1 - Once a stage is completed the next stage is available to play. N2.2 - Once the final stage is completed the game is completed.	Pass  Pass	9.1 and 9.3  9.2
N3	The different zombie types and player sprites should all be distinguishable from each other.	N3.1 - All sprites are different in design. They have different colours and features.	Pass	Test 12.1. The sprites are distinguishable.
N4	The game should guide the user through the story.	N4.1 - There are text prompts to give the user story information.	Pass	9.12
N6	The game could have an 8-bit aesthetic.		Pass	N/A