

SSAD ASSIGNMENT 3

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Code Review of Project:Mario Game which was built in first Assignment

Number of Lines Reviewed: 1360

Number of Classes:17

Number of Methods:

Number of Bugs Identified:10

Number of Code Smells Identified:8

BUGS:

Bug Number	Short Description	Fixed
#1	On clicking 'Q' ,when start screen is displayed , the game does not quit	YES
#2	When mario (in normal form) hits a block with a powerup,the powerup disappears.	YES

#3	As all the levels are randomly generated, sometimes the enemy is spawned inside a brick.	NO
#4	Sometimes, the enemy destroys the bricks.	NO
#5	While in super mode, the mario sometimes gets stuck in brick, when falling after jumping.	NO (HAS BEEN FIXED PARTIALLY)
#6	Print statements in between which were used for debugging.	YES
#7	If the OS does not aplay command, then error messages are displayed in game.	NO
#8	Two enemies can overlap and move	YES

	together, so more than one enemy appear as a single enemy.(Only in hard mode).	
#9	If 'a' or 'd' is pressed for a long time , then after leaving also the player keeps moving in the same direction.	NO
#10	Random generation of levels leads to some stages where it is impossible to cross the level.	NO
#11	Sometimes, bricks and coins end up having same priority.	YES
#12	The mario cannot take the fire power up before the cake powerup	YES

SMELLS:

Smell Number	Code Smell	Short Description	Fixed
#1	Unnecessary comments	Unnecessary comments are present in the code(which state obvious things.) Present mainly in main_mario_4.py	YES
#2	Duplicate code/ Combinatorial Explosion	In the main function of the game , the same code have has been duplicated thrice for each power-up / modes (m,M,S) with subtle	PARTIALLY

		changes. Present in main_mario_ 4.py	
#3	Long Methods	Methods like initialize() in Mario_Map class are too long.	PARTIAL Y
#4	Conditional Complexity	A large number of if / else statements have been used, some of which are not even necessary.	PARTIAL Y
#5	Uncommunic ative Name	Uncommunic ative naming has been used like flag_1, flagger etc.	YES
#6	Dead Code	Useless methods are present.	YES
#7	Large Class	Long classes	NO

		are present.	
#8	Lazy Functions	Functions not doing much (Must be coupled with other functions or deleted.)	NO