

# SSAD Assignment- 3

## Overview:

The assignment will be in two parts.

1. Code review
2. Testing using Pytest and running tests with tox.

## 1. Code Review (40 marks)

The students are required to do a self review of their Assignment-1 code.

Code review consists of

- Find and report Bugs in the code.
- Find and report whether all the required functionality of Bomberman game (self review) is implemented or not.
- Find and report the code smells within the code.
- Find and report whether the code written satisfies the coding standards set by PEP8.

Format of code review report named “codereview.pdf”

Student Name	<name>
Student Roll Number	<number>
Code Review of	<Self>/<Code Project Number>
# lines of code reviewed	<count>
# classes	<count>
# methods	<count>
#Bugs identified	<count>
#code smells identified	<count>

Bug Number	short description
#1	example description

Code smell	Short description
#category	example description

Based on your first code review make suitable improvements (refactor and adherence to PEP-8 standards) and do a code review again of the new code.

Both the old and the new code will be asked to upload on moodle in the exact same format as shown.

```
201664158/
|-- new
|   |-- bomberman.py
|   |-- bomb.py
|   |-- codereview.pdf
|   |-- other_files
|   |-- person.py
|-- old
|   |-- bomberman.py
|   |-- bomb.py
|   |-- codereview.pdf
|   |-- other_files
|   |-- person.py
-- README.md
```

Strictly follow this directory structure while uploading on moodle. Name of the folder should be your <roll\_number> and child directories are “old” and “new”. README.md should contain list of all the changes you made while improving your code.

Upload format: <roll\_number>.zip

## 2. Testing using Pytest and running tests with tox. (60)

There will be two parts for pytest:

- A. Use your source file of Assignment 1 (i.e. Bomberman game). Write testcases for all the classes implemented along with tests for functionality (Minimum 5 testcases for each functionality).
- B. Use the source file (i.e. tetris game) provided on moodle. Write testcases for all the classes implemented along with tests for functionality (Minimum 5 testcases for each functionality).

Make sure you cover these cases (for both A and B parts; Here the examples are given only for case A):

1. Write testcases for all the three classes (Person, Bomberman, Enemy) you were asked to implement in Assignment-1 example tests:

class Test\_Enemy() : This class covers the functionality of the Enemy class implemented during the Assignment-1.

- Capture the movement of enemy : The enemy should not cross any walls. Write tests to verify the same.
- Capture the respawn and destruction with bomb

Similarly write tests for all the other classes.

2. setup.py and tox.ini files must be setup. These are required for setting up tox.

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Note: Those who have not completed Assignment 1 (marks < 70) properly fill in your details in the google form provided and they will be given a separate code to do **the code review**.

**Link:** <https://goo.gl/forms/dpVahoNGebn9V94A2>

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**Help:**

- Students can run pylint to find the code smells and code style issues.
- Pep8 guidelines: <http://pylint-messages.wikidot.com/all-messages>
- Students can also refer to message codes and find similar bugs in the Bomberman code / Tetris code project you're reviewing.
- Instructions to use the pylint: <https://docs.pylint.org/en/1.6.0/tutorial.html#>