

The test set 1 include:

- Class Song as unit test
- Class cusPlayList as functional test
- Class UserAccount as system test

1. Unit test:

We choose the song class because it mainly collects song information.

- 1.1. All the valid input
- 1.2. Show that using list of names is invalid for Song Name and Artist variables.
- 1.3. String is invalid for Duration and integer is not.
- 1.4. Blank"" is accepted as a string. BPM can not be negative
- 1.5. Boolean variables are not invalid in this class.

2. Functional test:

We choose cusPlayList class because it's also aggregating with two other class which is PlaylistManager & PlaylistManager)

- 2.1. All the valid input
- 2.2. Trying all invalid input
- 2.3. Negative number is not valid in addSongToPlaylist, Blank"" will be valid in removeSongFromPlaylist.
- 2.4. Blank will be accepted as string in addSongToPlaylist, array of string is invalid.
- 2.5. Blank will be accepted as string in removeSongFromPlayList, array of string is invalid.

3. System test:

We choose UserAccount as a system test because it includes many different functions and can be operated as an independent system.

- 3.1. Showing all valid input
- 3.2. Blank"" can be accepted in registerUser but special sign and brackets is invalid in Login
- 3.3. Blank "" is valid in login as a string, array of integer is not a integer
- 3.4. getPlaylist only accept integer greater than 0, array of string is invalid in registerUser
- 3.5. Negative number is invalid in getPlaylist, array of number is invalid in registerUser class.