A1. The first directory ‘/tmp/data/images/’ is the absolute directory and other two directories ‘tmp/data/images/’ and ‘./tmp/data/images/’ is the relative directories.

A2. The tiled character ~ is a shorthand for linux system. And the command ‘echo ~’ will eventually print ‘/home/username’ just for my current computer it prints ‘/home/nsl7’

A3. The command ‘mkdir {1..10}’ will create 10 directories named from 1 to 10.

A4. ‘mkdir data’ command would create a directory named data but eventually raise error if it’s parent directory is not present.

‘mkdir -p data’ would create it’s parent directory if it is not present.

Thus, ‘mkdir -p data’ command can be used as the best practice.

A5. I would copy the ‘10000.png’ file using terminal to another directory and then inspect the file.

‘cp img\_dir/10000.png another/directory/’ command can be used to copy the file.

A6. ‘grep -nr ‘string\_to\_search’ path/to/file” command can be used.

B1. I could not completely finish it but did some part of it and it can be found at ‘ get\_images/get\_img.py’ file.

B2. Please check ‘sort\_the\_list.py’ file.

B3. 1) we can import those in ‘main.py’ file without any extra effort. Could be found at ‘musicplayer/main.py’.

2) please check ‘musicplayer/test/test\_musicplayer.py’ file. Here I have used ‘sys’ to import.

C1. ‘\_variable\_name’ refers to weakly private variable,

‘\_\_variable\_name’ refers to strongly private variable and

‘variable\_name\_’ has no semantics associated according to PEP 8 but users are urged to use trailing underscores in order to not conflict with Python keywords or python built-ins.

C2. Please chack ‘c2\_ans.py’ file.

C3. function ‘f’ form class ‘A’ will be called and it will print ‘f from class A’

C4. We need to implement ‘\_\_call\_\_’ method to make the python object callable. Please check the ‘c4\_ans.py’ file

C5. Please check the ‘c5\_ans.py’ file.

D1. I would use dictionary to store the data because it uses key and value. As I know the ‘id card number’ is unique, this will become my key.

D2. Please check the ‘d2\_ans.py’ file.

D3. Please check ‘d3\_ans.py’ file.

D4. We can store frequently occurred texts into a dictionary. Please check ‘d4\_ans.py’ file.

E1. Please check the ‘E/e\_ans.py’ file.

F1. Please check the ‘F/f1\_ans.py’ file.

F2. Please check the ‘F/f2\_ans.py’ file.

F3. Here I am to select the 10 top most important feature but the data I downloaded has only 10 features altogether, thus I am confused.