System Requirements Specification Index

For

Core Python list

Version 1.0

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Problem Statement : Using the Pythonlist functions

Description : Use relevant methods of python list toperform specified activities which are given in the instructions.

The Template contains the following folder structure.

```
pythonlist
        |--pythonlist.py
        |--test  (contains unit test case files for the solution)
```

Pythonlist.py:

Implement all the methods as specified in the following instructions.

- **Question 1: Sort a List of Numbers** Write a function that takes a list of numbers and returns the list sorted in ascending order. Provide an example of how to use this function.
- **Question 2: Filter Even Numbers** Write a function that takes a list of numbers and returns a new list containing only the even numbers. Provide an example of how to use this function.
- **Question 3: Find the Maximum Number** Write a function that takes a list of numbers and returns the maximum number in the list. Provide an example of how to use this function.
- **Question 4: Reverse a List** Write a function that takes a list and returns the list reversed. Provide an example of how to use this function.
- **Question 5: Remove Duplicates** Write a function that takes a list and returns a new list with duplicates removed. Provide an example of how to use this function.
- **Question 6: Square Each Number** Write a function that takes a list of numbers and returns a new list with each number squared. Provide an example of how to use this function.
- **Question 7: Find the Longest String** Write a function that takes a list of strings and returns the longest string. Provide an example of how to use this function.
- **Question 8: Concatenate Strings** Write a function that takes a list of strings and returns a single string that is the concatenation of all the strings in the list. Provide an example of how to use this function.

Execution Steps to Follow:

1. All actions like build, compile, running application, running test cases will be through Command Terminal.
2. To open the command terminal the test takers, need to go to Application menu (Three horizontal lines at left top) -> Terminal -> New Terminal
3. This editor Auto Saves the code
4. If you want to exit(logout) and continue the coding later anytime (using Save & Exit option on Assessment Landing Page) then you need to use CTRL+Shift+B-command compulsorily on code IDE. This will push or save the updated contents in the

internal git/repository. Else the code will not be available in the next login.

5. These are time bound assessments the timer would stop if you logout and while logging in back using the same credentials the timer would resume from the same time it was stopped from the previous logout.
6. To setup environment:

   You can run the application with out importing any packages

7. To launch application:

   python3 pythonlist.py

8. To run Test cases:

   python3 -m unittest

9. Before Final Submission also, you need to use CTRL+Shift+B-command compulsorily on code IDE. This will push or save the updated contents in the internal git/repository for code quality analysis graph.

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