**Task 7**

**Add to your framework a menu named Correlation that includes the following features:**

1. **Correlation: compute normalized cross-correlation of two signals. 2**
2. **Time Analysis: perform time delay analysis, given two periodic signals and the sampling period, find approximately the delay between them. 2**
3. **Template matching: the user will give the paths for two folders of two classes and a test folder, using template matching the application will give labels for all signals in test folder. 6**