Koushik Sahu
118CS0597
Machine Learning Lab - IV
28th September 2021

Output:
Correlation matrix
[[1.0,
  -0.335642195508513,
  -0.3785606178715616,
  -0.32099978976972116,
  -0.3010897113958365,
  -0.25050229252073214],
 [-0.335642195508513,
  1.0,
  0.7581573478037231,
  0.5347290904835281,
  0.5171892214181076,
  0.2669074311252619],
 [-0.3785606178715616,
  0.7581573478037232,
  1.0000000000000002,
  0.5379898185263052,
  0.5605134214806345,
  0.5272461816383357],
 [-0.32099978976972116,
  0.5347290904835281,
  0.5379898185263051,
  1.0000000000000004,
  0.5822454590800031,
  0.48784576802832064],
 [-0.3010897113958365,
  0.5171892214181076,
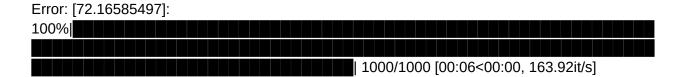 0.5605134214806345,
  0.5822454590800031,
  1.0,
  0.5482812070286769],
 [-0.2505022925207322,
  0.2669074311252619,
  0.5272461816383357,
  0.4878457680283206,
  0.5482812070286769,
  1.0]]
Correlation with PRP:
MYCT: -0.3070994470957124

```
MMIN: 0.7949313405266915
MMAX: 0.8630041243651341
CACH: 0.6626414266783193
CHMIN: 0.6089032834114069
CHMAX: 0.605209292812674
```

Considering threshold at 0.65 we pick MMIN, MMAX, CACH as our features

Error: [72.16585497]:
100%|██
██
████████████████████████████████████| 1000/1000 [00:06<00:00, 163.92it/s]

Ttest_indResult(statistic=10.355846734669813, pvalue=5.795610263826171e-22)

Ttest_indResult(statistic=13.668530381950385, pvalue=4.7368469939094505e-34)

Ttest_indResult(statistic=-6.843059223012634, pvalue=3.748680035726683e-11)

R^2 value:

```
0.12785593327407194
```