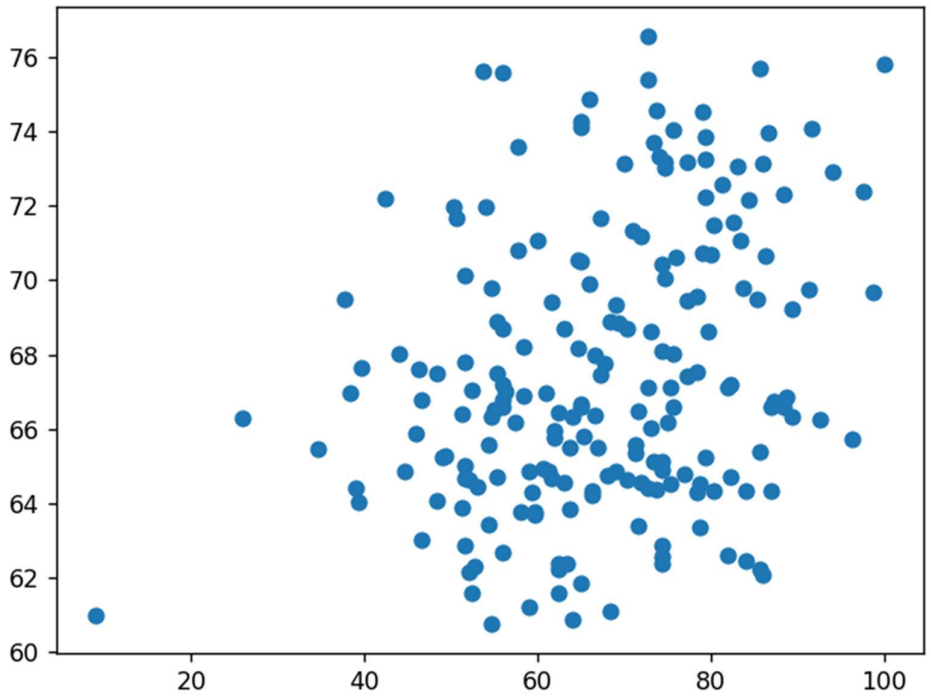
24ADI003_24BAD040 EXP3

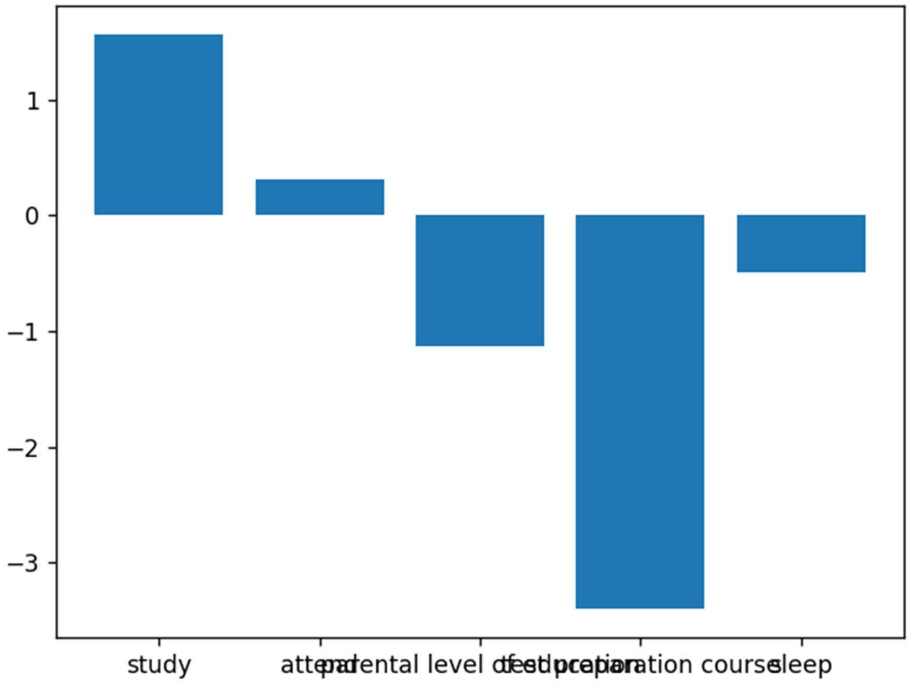
1.Multi-linear regression:

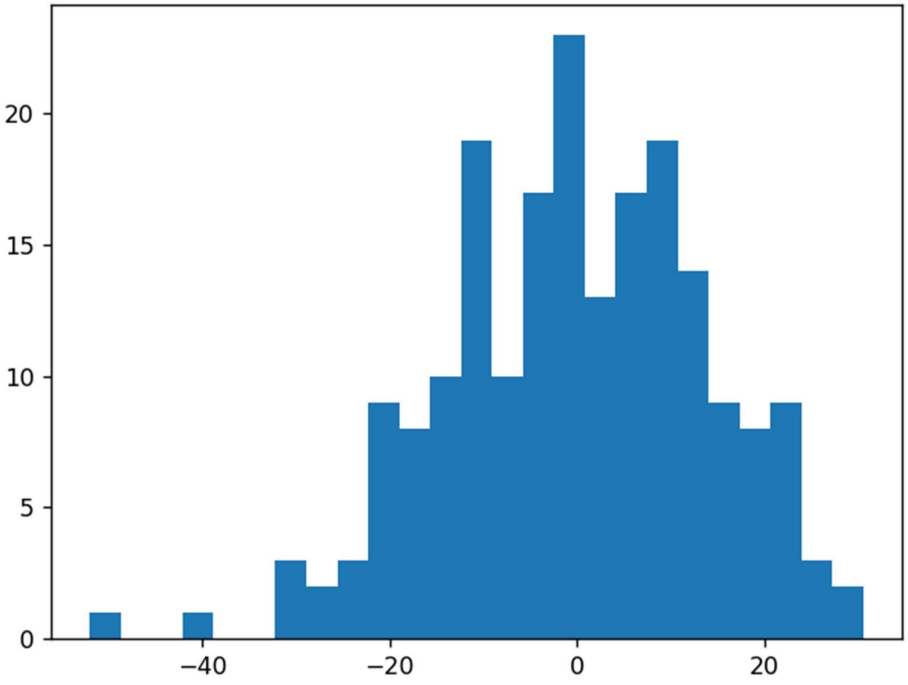
Output:

```
JANASREE 24BAD040
194.75201293568443 13.955357857671885 0.07936947194924637
                   Feature      Coef
0                    study  1.560753
1                   attend  0.310023
2  parental level of education -1.132443
3      test preparation course -3.396613
4                    sleep -0.491398
0.079350691109489 0.07912230680657195
```

Figure:




1
0
−1
−2
−3
study
attend
parental level of education
test preparation course
sleep


20
15
10
5
0
−40
−20
0
20

2.Polynomial regression :

Output:

```
JANASREE 24BAD040
2 18.416967796017794 4.291499481069268 0.6391701147013311
Ridge 0.6456171985155599
3 18.460267222224626 4.296541309265469 0.6383217814053861
Ridge 0.6423184634199431
4 18.268226874853188 4.274134634619409 0.6420842844016577
Ridge 0.641373576375189
>
```

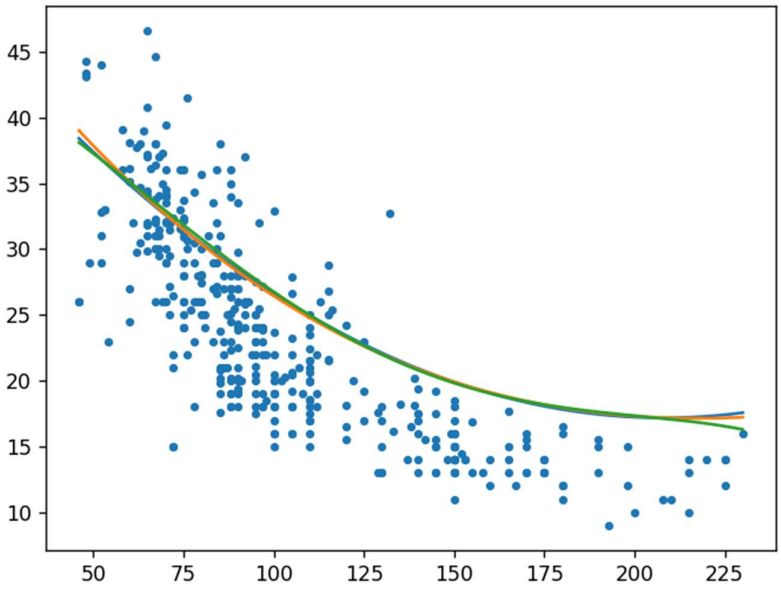



Figure: