```
import numpy as np
import pandas as pd
```

```
!gdown 1c0ClC8SrPwJq5rrkyMKyPn80nyHcFikK
```

```
Downloading...
From: https://drive.google.com/uc?id=1c0ClC8SrPwJq5rrkyMKyPn80nyHcFikK
To: /content/survey.txt
100% 2.55k/2.55k [00:00<00:00, 9.86MB/s]
```

```
score = np.loadtxt('survey.txt',dtype='int')
score
```

```
array([ 7, 10,  5, ...,  5,  9, 10])
```

NUMERICAL DATA

```
score.shape
```

```
(1167,)
```

```
score.min()
```

```
1
```

```
score.max()
```

```
10
```

NPS = %Promoters-%Detractors

```
Promoters = score[score>=9]
Promoters.shape[0]
```

```
609
```

```
Detractors = score[score<=6]
Detractors.shape[0]
```

```
332
```

```
Promoters_Percentage = (Promoters.shape[0]/score.shape[0])*100
Promoters_Percentage
```

```
52.185089974293064
```

```
Detractors_Percentage = (Detractors.shape[0]/score.shape[0])*100
Detractors_Percentage
```

```
28.449014567266495
```

```
NPS = Promoters_Percentage - Detractors_Percentage
round(NPS,2)
```

```
23.74
```

Categorical Type Of Data

```
score[score>=9] = "Promoters"
```

```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
<ipython-input-23-019cfe1dff7e> in <cell line: 1>()
----> 1 score[score>=9] = "Promoters"

ValueError: invalid literal for int() with base 10: 'Promoters'
```

SEARCH STACK OVERFLOW

```
arr=np.empty(shape=score.shape,dtype='str')
arr
```

```
array(['', '', '', ..., '', '', ''], dtype='<U1')
```

```
arr=np.empty(shape=score.shape,dtype='<U20')
arr
```

```
array(['', '', '', ..., '', '', ''], dtype='<U20')
```

```
arr.shape
```

```
(1167,)
```

```
score<=6
```

```
array([False, False,  True, ...,  True, False, False])
```

```
arr[score<=6]="Detractors"
arr
```

```
array(['', '', 'Detractors', ..., 'Detractors', '', ''], dtype='<U20')
```

```
arr[score>=9]="Promoters"
arr
```

```
array(['', 'Promoters', 'Detractors', ..., 'Detractors', 'Promoters',
       'Promoters'], dtype='<U20')
```

```
arr[(score>=7) & (score<=8)]="Passive"
arr
```

```
array(['Passive', 'Promoters', 'Detractors', ..., 'Detractors',
       'Promoters', 'Promoters'], dtype='<U20')
```

```
arr
```

```
array(['Passive', 'Promoters', 'Detractors', ..., 'Detractors',
       'Promoters', 'Promoters'], dtype='<U20')
```

```
arr.shape
```

```
(1167,)
```

```
Promoters_Count=arr[arr=="Promoters"].shape[0]
Promoters_Count
```

```
609
```

```
Detractors_Count=arr[arr=="Detractors"].shape[0]
Detractors_Count
```

```
332
```

```
Passive_Count=arr[arr=="Passive"].shape[0]
Passive_Count
```

```
226
```

```
Total=arr.shape[0]
Total
```

```
1167
```

```
Promoters_Percentage = (Promoters_Count/Total)*100
Promoters_Percentage
```

```
52.185089974293064
```

```
Detractors_Percentage = (Detractors_Count/Total)*100
Detractors_Percentage
```

```
28.449014567266495
```

```
NPS=Promoters_Percentage-Detractors_Percentage
NPS
```

```
23.73607540702657
```

```
round(NPS,2)
```

```
23.74
```

✓ 0s completed at 10:02