Ex :1 Load the Titatic Dataset & convert it into a Dalaframe

AIM:

To perform basic preprocessing and exploiting data analysis on the titanic dataset using pandas, seaborn & sklearn tools.

PROCEDURE :

* Step 1: Load the dataset into a dataframe
* Step 2: Display the first few rows using heading
* Step 3: Explore column datatypes and check for missing value using info ()
* Step 4: Apply Forward bias and backward fill methods of The Age column
* Step 5: Fill the missing column value
* Step 6: Remove the unwanted column
* Step 7: Encode the sex column.
* Step 8: Display the conclusion heatmap for 'place', 'Age', 'sex'

CODE :

```
import pandas as pd
import seaborn as sns
Import matplotlib.pyplot as plt
from sklearn.preprocessing import label encoder
            standard scalar.

df = sns.load_dataset ('titanic')
print ("First 5 Rows")
```

output :

First 5 rows

survived	pclass	sex	Age	sibsp	pauch	Fare
0	3	M	22	1	7.28	S
1	1	F	28	1	7.32	C
1	3	F	26	0	7.62	S
0	1	M	35	1	7.54	S

Who	adult-male	deck	embark_town
Man	True	Nan	south hampton
Women	False	C	chwbug
man	True	Nan	south hampton
women	false	C	south hampton .

Data info

<class 'pandas - core, frame . DataFrame >

Range Indesc : 891 entries , 0 to 80

Data column (total 15 columns):

```
display ( df . head (1))
print ('\n INDATA')
 df . info ()
df ['age'] = df ['age'] . fillna (method - "ffill")
df [' age'] = df ['age'] . fillna ( method = " bfill")
df [' desk'] = df ['desk'] . fillna . cat . add_categories
                                    ('unknown').
                        fillna ('unknown' . limit = 5)
     df = df . drop_duplicates ()
   le = LabelEncoder ()
  df ['sex'] = le . fit_transform (df ['sex'] . astype (str))
   scalar   = standard scalar ()
   df [' Fare'] = scalar . fit_transform (df ['fare'] . fillna
                                                  (0))
   plt . suptitle (" pair of plot selected Features", y = 1.02 )
sns . heatmap (df ['pclass', 'age', 'sibsp', 'pach', 'Fare'])
          corr() , cannot = true , cmap = ' colomn_num',
                line_width = 0.5)
   plt . title ( " correlation Heatmap")
        plt . show ()
```

Result :

Thus the reqired program of plotting has been successfully executed.