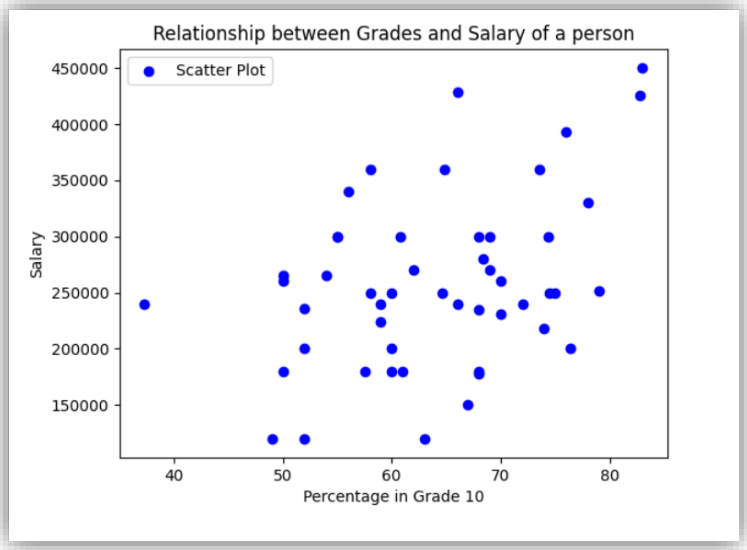
```
 #   Column                 Non-Null Count  Dtype
---  ------                 --------------  -----
 0   S. No.                 50 non-null     int64
 1   Percentage in Grade 10  50 non-null    float64
 2   Salary                 50 non-null     int64
dtypes: float64(1), int64(2)
memory usage: 1.3 KB
```

	S. No.	Percentage in Grade 10	Salary
count	50.00000	50.000000	50.000000
mean	25.50000	63.922400	258192.000000
std	14.57738	9.859937	76715.790993
min	1.00000	37.330000	120000.000000
25%	13.25000	57.685000	204500.000000
50%	25.50000	64.700000	250000.000000
75%	37.75000	70.000000	300000.000000
max	50.00000	83.000000	450000.000000



	S. No.	Percentage in Grade 10	Salary
0	1	62.00	270000
1	2	76.33	200000
2	3	72.00	240000
3	4	60.00	250000
4	5	61.00	180000
5	6	55.00	300000
6	7	70.00	260000
7	8	68.00	235000
8	9	82.80	425000
9	10	59.00	240000

```
array([62.  , 76.33, 72.  , 60.  , 61.  , 55.  , 70.  , 68.  , 82.8 ,
       59.  , 58.  , 60.  , 66.  , 83.  , 68.  , 37.33, 79.  , 68.4 ,
       70.  , 59.  , 63.  , 50.  , 69.  , 52.  , 49.  , 64.6 , 50.  ,
       74.  , 58.  , 67.  , 75.  , 60.  , 55.  , 78.  , 50.08, 56.  ,
       68.  , 52.  , 54.  , 52.  , 76.  , 64.8 , 74.4 , 74.5 , 73.5 ,
       57.58, 68.  , 69.  , 66.  , 60.8 ])
```



```
Estimated model slope: [[1531.19677393]]
Estimated model intercept: (array([154314.07287032]),)
```

```
R2 Score = 0.1752137203291072
RMSE =  80182.60018806695
```

	Empid	Ename	Salary	DOJ
0	1001	Ganesh	1000.00	10-10-2000
2	1003	Gaurav	NaN	03-03-2002
4	1005	Laxmi Prasanna	12000.75	10-08-2000

```
0    1001
1    1002
2    1003
3    1004
4    1005
5    1006
Name: Empid, dtype: int64
```

	Empid	Ename
0	1001	Ganesh
1	1002	Anil
2	1003	Gaurav
3	1004	Hema Chandra
4	1005	Laxmi Prasanna
5	1006	Anant

```
Dimensions of the original frame (6, 4)
Dimensions of the frame with duplicates (12, 4)
Dimensions of the frame after removing duplicates (6, 4)
```

```
   EMPID  ENAME  SALARY    DOJ
0  False  False   False  False
1  False  False   False  False
2  False  False    True  False
3  False  False   False  False
4  False  False   False  False
5  False  False   False  False
The no. of nulls in each column is
 EMPID     0
ENAME     0
SALARY    1
DOJ       0
dtype: int64
```

```
Highest Salary is 23000.5
Lowest Salary is 1000.0
```

	EMPID	ENAME	SALARY	DOJ
1	1002	Anil	23000.5	3/20/2002

	EMPID	ENAME
1	1002	Anil

	EMPID	ENAME
1	1002	Anil

```
Average Salary is 12500.348

1            Anil
3    Hema Chandra
Name: ENAME, dtype: object
```

```
Data columns (total 4 columns):
 #   Column  Non-Null Count  Dtype
---  ------  --------------  -----
 0   Empid   6 non-null      int64
 1   Ename   6 non-null      object
 2   Salary  5 non-null      float64
 3   DOJ     6 non-null      datetime64[ns]
dtypes: datetime64[ns](1), float64(1), int64(1), object(1)
memory usage: 240.0+ bytes
Frame before sorting
    Empid           Ename    Salary        DOJ
0   1001          Ganesh   1000.00 2000-10-10
1   1002            Anil  23000.50 2002-03-20
2   1003          Gaurav       NaN 2002-03-03
3   1004    Hema Chandra  16500.50 2000-09-10
4   1005  Laxmi Prasanna  12000.75 2000-10-08
5   1006          Anant    9999.99 1999-09-09
Frame after sorting
    Empid           Ename    Salary        DOJ
5   1006          Anant    9999.99 1999-09-09
3   1004    Hema Chandra  16500.50 2000-09-10
4   1005  Laxmi Prasanna  12000.75 2000-10-08
0   1001          Ganesh   1000.00 2000-10-10
2   1003          Gaurav       NaN 2002-03-03
1   1002            Anil  23000.50 2002-03-20
```

	Empid	Ename	Salary	DOJ
1	1002	Anil	23000.50	2002-03-20
2	1003	Gaurav	NaN	2002-03-03
0	1001	Ganesh	1000.00	2000-10-10
4	1005	Laxmi Prasanna	12000.75	2000-10-08
3	1004	Hema Chandra	16500.50	2000-09-10
5	1006	Anant	9999.99	1999-09-09

	Empid	Ename	Salary	DOJ
1	1002	Anil	23000.50	2002-03-20
2	1003	Gaurav	NaN	2002-03-03
0	1001	Ganesh	1000.00	2000-10-10
4	1005	Laxmi Prasanna	12000.75	2000-10-08
3	1004	Hema Chandra	16500.50	2000-09-10
5	1006	Anant	9999.99	1999-09-09

```
a    1
b    2
c    3
d    4
e    5
dtype: int64
a    1
b    2
c    3
dtype: int64
```

	Name	Age
0	Alex	10
1	Bob	12
2	Clarke	13

	Name	Age
0	Tom	28
1	Jack	34
2	Steve	29
3	Ricky	42

	Name	Age
rank1	Tom	28
rank2	Jack	34
rank3	Steve	29
rank4	Ricky	42

	a	b	c
0	1	2	NaN
1	5	10	20.0

	a	b	c
first	1	2	NaN
second	5	10	20.0

	a	b
first	1	2
second	5	10
	a	b1
first	1	NaN
second	5	NaN

	one	two
a	1.0	1
b	2.0	2
c	3.0	3
d	NaN	4

```
Adding a new column by passing as Series:
   one  two  three
a  1.0    1   10.0
b  2.0    2   20.0
c  3.0    3   30.0
d  NaN    4    NaN
Adding a new column using the existing columns in DataFrame:
   one  two  three  four
a  1.0    1   10.0  11.0
b  2.0    2   20.0  22.0
c  3.0    3   30.0  33.0
d  NaN    4    NaN   NaN
```

```
Our dataframe is:
   one  two  three
a  1.0    1   10.0
b  2.0    2   20.0
c  3.0    3   30.0
d  NaN    4    NaN
Deleting the first column using DEL function:
   two  three
a    1   10.0
b    2   20.0
c    3   30.0
d    4    NaN
Deleting another column using POP function:
   three
a   10.0
b   20.0
c   30.0
d    NaN
```