```
File Edit View Search Terminal Help
182811308
1.Generate
2.Display
3.Sort ascending
4.Sort descending
5.Best case
6.Worst case
7.Average case
8.Total time complexity
9.exit
Enter your choice:1
Enter the number of elements:10
1.Generate
2.Display
3.Sort ascending
4.Sort descending
5.Best case
6.Worst case
7.Average case
8.Total time complexity
9.exit
Enter your choice:
```

| File Edit View Search Terminal Help | | | |
|-------------------------------------|------------------|-----------------|----------------------------|
| Input | average case | best case | worst case |
| 5000 | 0.031497 | 0.000020 | 0.050443 |
| 10000 | 0.113476 | 0.000030 | 0.203355 |
| 15000 | 0.231376 | 0.000044 | 0.457167 |
| 20000 | 0.458525 | 0.000058 | 0.859096 |
| 25000 | 0.663684 | 0.000075 | 1.287831 |
| 30000 | 0.944192 | 0.000084 | 1.854924 |
| 35000 | 1.269748 | 0.000108 | 2.490706 |
| 40000 | 1.618069 | 0.000113 | 3.224608 |
| 45000 | 2.064908 | 0.000128 | 4.113266 |
| 50000 | 2.522603 | 0.000142 | 5.056185 |
| Total t | ime required for | the excution of | this option was: 49.210396 |