```
**********************************************
* PROGRAMMED BY : Faris Hijazi
* CLASS         : CS1A
* SECTION       : MW: 7:30P
* Assignment #4 : Recursion Performance
**********************************************

1 - Calculate and Display Factorial of a Number
2 - Calculate and Display Fibonachi Series of a Number
3 - Compare Performance for Factorial Implementations
4 - Compare Performance for Fibonachi Implementations
0 - Exit
enter a command (0 to exit): 1

Enter a number n: 9
calculating...
Factorial of 9 is: 362880

1 - Calculate and Display Factorial of a Number
2 - Calculate and Display Fibonachi Series of a Number
3 - Compare Performance for Factorial Implementations
4 - Compare Performance for Fibonachi Implementations
0 - Exit
enter a command (0 to exit): 2

Enter a number n: 15
Fibonachi series:
0,
1,
1,
2,
3,
5,
8,
13,
21,
34,
55,
89,
144,
233,
377

1 - Calculate and Display Factorial of a Number
2 - Calculate and Display Fibonachi Series of a Number
3 - Compare Performance for Factorial Implementations
4 - Compare Performance for Fibonachi Implementations
0 - Exit
enter a command (0 to exit): 3

Enter a number n: 8
```

```
52
53 Measuring exicution time for recursive...
54 It took the program 7 microseconds to execute.
55
56 Measuring execution time for non recursive...
57 It took the program 3 microseconds to execute.
58
59 1 - Calculate and Display Factorial of a Number
60 2 - Calculate and Display Fibonachi Series of a Number
61 3 - Compare Performance for Factorial Implementations
62 4 - Compare Performance for Fibonachi Implementations
63 0 - Exit
64 enter a command (0 to exit): 3
65
66 Enter a number n: 15
67
68 Measuring exicution time for recursive...
69 It took the program 14 microseconds to execute.
70
71 Measuring execution time for non recursive...
72 It took the program 11 microseconds to execute.
73
74 1 - Calculate and Display Factorial of a Number
75 2 - Calculate and Display Fibonachi Series of a Number
76 3 - Compare Performance for Factorial Implementations
77 4 - Compare Performance for Fibonachi Implementations
78 0 - Exit
79 enter a command (0 to exit): 4
80
81 Enter a number n: 15
82
83 Measuring exicution time for recursive...
84 It took the program 1786 microseconds to execute.
85
86 Measuring execution time for non recursive...
87 It took the program 647 microseconds to execute.
88
89 1 - Calculate and Display Factorial of a Number
90 2 - Calculate and Display Fibonachi Series of a Number
91 3 - Compare Performance for Factorial Implementations
92 4 - Compare Performance for Fibonachi Implementations
93 0 - Exit
94 enter a command (0 to exit): 4
95
96 Enter a number n: 30
97
98 Measuring exicution time for recursive...
99 It took the program 735198 microseconds to execute.
100
101 Measuring execution time for non recursive...
102 It took the program 351 microseconds to execute.
```

```
103
104 1 - Calculate and Display Factorial of a Number
105 2 - Calculate and Display Fibonachi Series of a Number
106 3 - Compare Performance for Factorial Implementations
107 4 - Compare Performance for Fibonachi Implementations
108 0 - Exit
109 enter a command (0 to exit): 0
```