**TAKE HOME QUESTIONS:**

Please answer at least 3 out of the 5 questions.

For each of the solved problem, please attach your answer and code files used.

1. **Write a console program that prints the numbers from 1 to 100. But for multiples of three print Explorica instead of the number and for the multiples of five print Tours. For numbers which are multiples of both three and five print ExploricaTours.**

**Instructions:**

1. print the numbers from 1 to 100
2. for multiples of 3 print “**Explorica** ” instead of the number
3. for multiples of 5 print “**Tours**” instead of the number
4. for multiples of 3 and 5 print “**ExploricaTours**” instead of the number
5. **Print out the grade-school multiplication table up to 12x12**

Example output:

1 2 3 4 5 6 7 8 9 10 11 12  
 2 4 6 8 10 12 14 16 18 20 22 24  
 3 6 9 12 15 18 21 24 27 30 33 36  
 4 8 12 16 20 24 28 32 36 40 44 48  
 5 10 15 20 25 30 35 40 45 50 55 60  
 6 12 18 24 30 36 42 48 54 60 66 72  
 7 14 21 28 35 42 49 56 63 70 77 84  
 8 16 24 32 40 48 56 64 72 80 88 96  
 9 18 27 36 45 54 63 72 81 90 99 108  
 10 20 30 40 50 60 70 80 90 100 110 120  
 11 22 33 44 55 66 77 88 99 110 121 132  
 12 24 36 48 60 72 84 96 108 120 132 144

1. **Write a function to reverse a string.**

Example output for "Madam, I'm Adam":   madA m'I ,madam

1. **Write a console program with a series of statements to produce each of the following patterns. Use only the following Console.Write statements. Each Console.Write may only appear once in each segment of the program.**

Console.Write("\*") Console.Write(" ");

Console.WriteLine();

1.

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2.

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1. **Write a console program for the following question. Given an input file of strings, you are tasked with determining the minimum and maximum length of N number of strings joined together. Be sure to write your program such that it takes up as little memory as possible when running. The file format will be as follows:**

1. The first line of the file will contain a number N, which will be the number of strings you’ll need to join together to determine the min and max lengths. N will be >= 2.

2. Each line after the first will contain one or more ‘#’ characters. The number of lines will be >=N and you will need to use the length of these lines to determine the min and max lengths. Your output will simple be the minimum and maximum length."

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| Example: |
| Input File:  3  ##  ######  ####  #  ######  #######  ### |