CA4 Instructions to Run the Code

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The code is interactive with following limitations: -

- The code supports running for multiple methods in a single run so either you have to run for a single method or run for multiple methods you will have to input the method number as follows: -

  [1] or [2] or [3] or [4] or [5] or [6] → If one method

  [1 2 3 4 5 6] or [1 2 3] and in similar manner → If for multiple methods

- Paste the input in: -

  input_file.txt

  The input contains the first line as the value of N and the second line as the value of M and after that as given in the sample input files without any text (For example see attached input output below)

- It is **NECESSARY that you have to enter the folder path where you want to save the output file for example: -**
  - **"C:\Aviral Data\Sem7\ESO208"**

  So, in a similar manner you have to enter the ABSOLUTE path of the folder

  Once you execute the code input will be taken from file as mentioned above and similarly output will be in the folder you mentioned with the file name: -

  output_file.txt

INPUT/OUTPUT STARTS FROM NEXT PAGE:-

Input output for the given Test case: -

Input

5

4

-1.000 0.0385

-0.500 0.1379

0.000 1.0000

0.500 0.1379

1.000 0.0385

-0.8000

-0.2000

0.2000

0.8000

-1.0000 1.5000

Output

Linear Spline

-0.800000 0.078260

-0.200000 0.655160

0.200000 0.655160

0.800000 0.078260

Quadratic Spline

-0.800000 0.078260

-0.200000 0.472112

0.200000 1.252016

0.800000 -0.701644

Natural Cubic Spline

-0.800000 -0.036340

-0.200000 0.771569

0.200000 0.771569

0.800000 -0.036340

Not-a-Knot Cubic Spline

-0.800000 -0.252006

-0.200000 0.802378

0.200000 0.802378

0.800000 -0.252006

Periodic Cubic Spline

-0.800000 0.004261

-0.200000 0.765769

0.200000 0.765769

0.800000 0.004261

Clamped Cubic Spline

-0.800000 -0.079311

-0.200000 0.774769

0.200000 0.786769

0.800000 -0.122168

Plot: -