**DS 510 Week 5**

**Assignment**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **X** | 151 | 174 | 138 | 186 | 128 | 136 | 179 | 163 | 152 | 131 | 153 | 177 | 148 | 189 | 138 | 146 | 199 | 167 | 153 | 130 |
| **Y** | 63 | 81 | 56 | 91 | 47 | 57 | 76 | 72 | 62 | 48 | 65 | 84 | 59 | 93 | 49 | 55 | 79 | 75 | 66 | 49 |

For the above series, compute all steps to perform simple linear regression mathematically where X is the independent variable and Y is the dependent variable.

Compute the following:

1. Sx & Sy
2. Slope
3. Intercept
4. Linear Equation
5. Value of R2

* Solve the assignment using paper – pen and upload scanned/photo of your assignment as part of submission.
* Mention all steps and reasoning along your steps in assignment solution. Detailed steps will be considered towards the score.

All the best!