**Probability and Statistics-1**

**Project**

**Done By:**

**Semester-1**

**Division B**

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**Task 6**

**i)** Based on the Expected return, we can see that Investor D has the highest return of 0.00189. They are followed by Investor B whose return is 0.001634. Investor A is next with a return of 0.000399. Next is Investor Investor E with a return of -0.00023. They are followed by Investor F with a return of -0.00133. Finally, Investor C has the least return of -0.00174.

Investor A, B and C have invested in only one asset. While A and B seem to have a nice amount of return, C seems to be having a bad yield and has the least return in all the investors. Investors D, E and F have made two-asset investments. While D seems to have the highest return of all the investors, E and F are getting negative returns.

We can see from this that the stocks that they have invested in is making a huge difference. Investor D seems to have the highest yield because they have invested in two assets and both are giving positive returns. Investor C has the lowest yield because they have invested in only one asset and that asset is giving them a low return. Investor A and B are receiving good returns because even though they have only invested in one asset, it is giving them a good return. The reason why Investors E and F are getting negative returns in spite of having invested in two assets is because one of their investments is giving them a negative yield. However, had E and F not invested in a second asset and only invested in SpiceJet like C, they could have had a greater loss.

So we now know that it is better two invest in two assets rather than just one, because even if we can get returns as great as A and B we also have the risk of getting bad returns as low as C. This is not the case for two-asset investments. With two-asset investments we can get results as high as D, if we make good investments and we even have a lower risk of bad investments like in the case of Investors E and F.

From all the information we can see that Investor D has benefitted from diversification of his portfolio. Investor D invested in HDFC and ONGC, both of which were giving positive returns.

**ii)** The project was divided on the basis of marks. Since the total project was for 50 marks, both the members divided questions worth 25 marks each. The questions were divided as follows:

Shagun Alag- 1,2,3,4,6(ii)

Sarthak Sogani- 5,6(i)

It was a bit difficult to distribute the tasks but we were eventually able to equally divide all the work.

The teamwork was very good. We were able to communicate well and even help each other in case of any doubts. There was only one issue. Since we were both working on the project individually, putting it together caused a little bit of confusion. However, we were able to resolve that problem.