# Module 4 Peer Assignment Sample Answers

**Q1.**

Stock 1 is: APPL

Stock 2 is: INTC

In this solution, I use AAPL and INTC as the two ticker symbols. The students should update the code appropriately. That is, they should substitute AAPL & INTC with the ticker symbols that they selected.

**Q2.**

stocks1 <- c("AAPL", "INTC")

**Q3.**

plot(prices$AAPL)

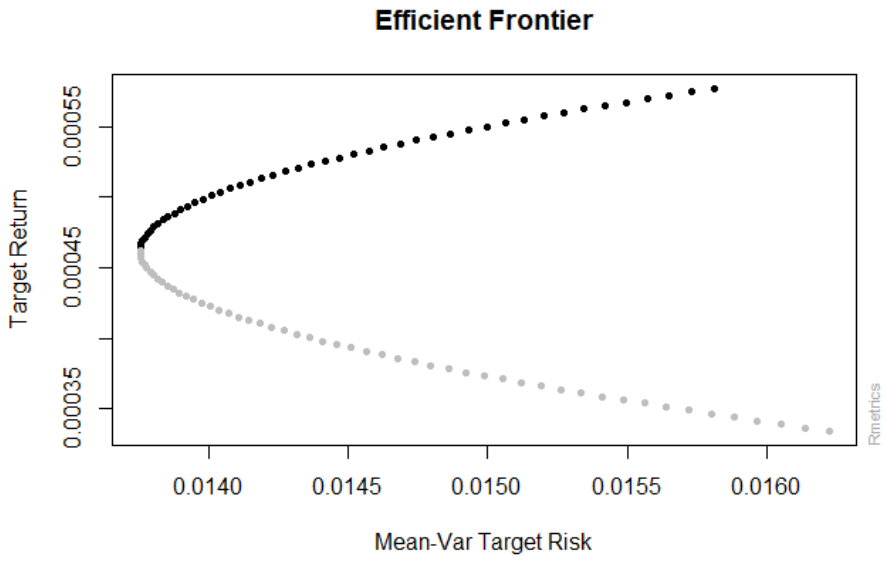

**Q4.**

plot(prices$INTC)


**Q5.**

```
mean(Portfolio1$AAPL)
[1] 0.0005768839
var(Portfolio1$AAPL)
             AAPL
AAPL 0.000249986
mean(Portfolio1$INTC)
[1] 0.0003343698
var(Portfolio1$INTC)
              INTC
INTC 0.0002631987
```

**Q6.**




The plot of the Efficient frontier has the return on the y-axis and the risk on the x-axis. Each point on the frontier represents the maximum return for a given risk level.

**Q7-A.** What is the Minimum Variance Portfolio?

The minimum variance portfolio is a least amount of risk for the expected rate of return of a portfolio.

**Q7-B.** What is the expected return of the Minimum Variance Portfolio?

0.0005

**Q7-C.** What are the weights of the Minimum Variance portfolio?

Portfolio Weights:

AAPL INTC

0.5247 0.4753

**Q8-A.** What is the Tangency Portfolio?

The tangency portfolio is the portfolio with the highest Sharpe ratio.

**Q8-B.** What is the expected return of the Tangency Portfolio?

0.0005. (note that due to rounding, this is the same as above, but the graph shows a higher value for the tangency portfolio)

**Q8-C.** What are the weights of the Tangency portfolio?

Portfolio Weights:

AAPL INTC

0.8762 0.1238