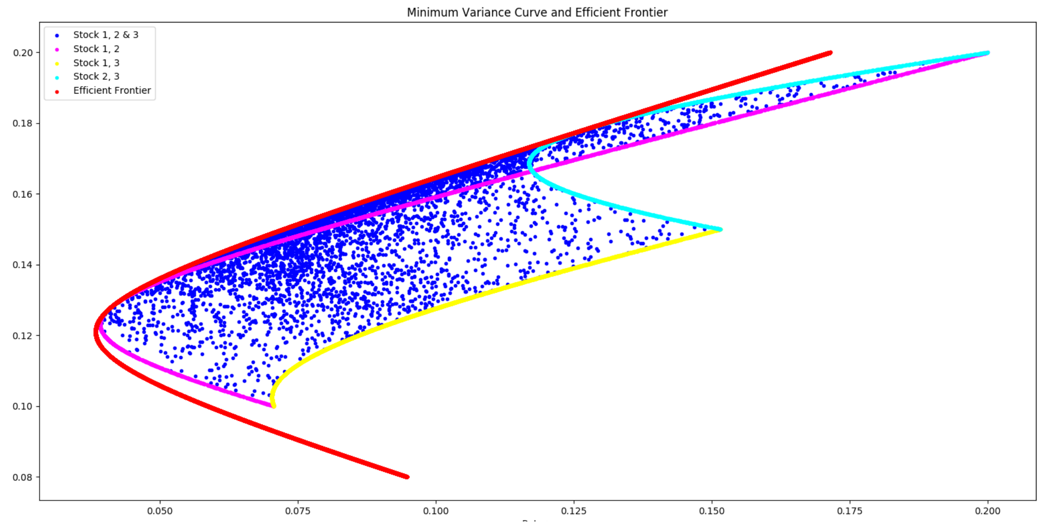
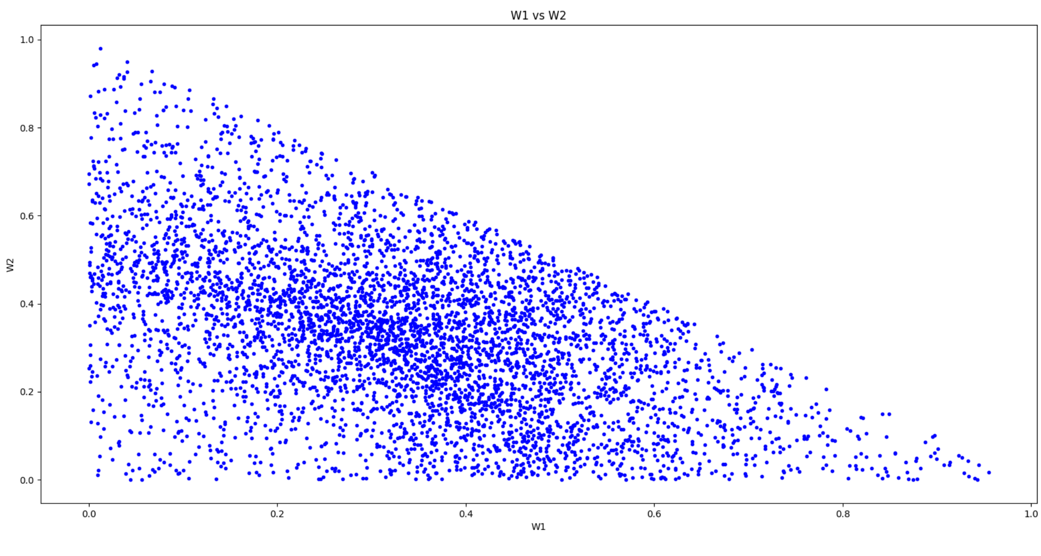
MA 374 Lab 03

Deepak Kumar Gouda | 160123054

1)

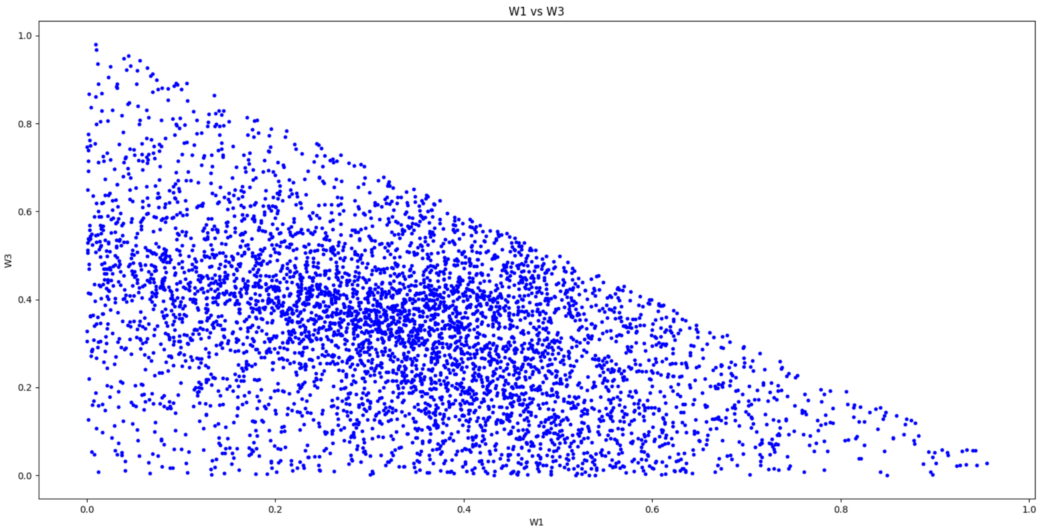


Feasible Region of Risk-Return Plot (without Short Selling)



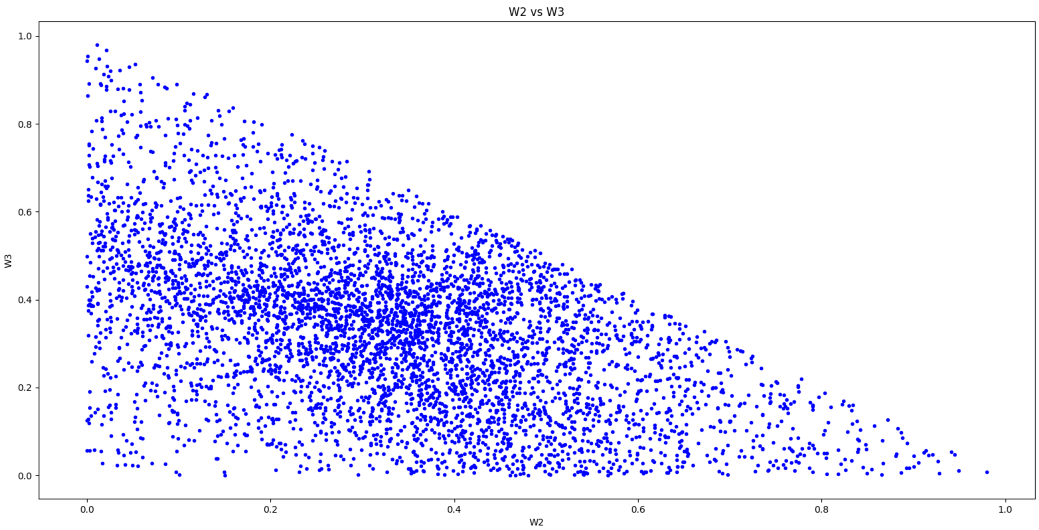
W_1 vs W_2 plot

The plot is the area enclosed by the lines $W_1 >= 0$, $W_2 >= 0$ and $W_1 + W_2 <= 1$



W_1 vs W_3 plot

The plot is the area enclosed by the lines $W_1 >= 0$, $W_3 >= 0$ and $W_1 + W_3 <= 1$



W_2 vs W_3 plot

The plot is the area enclosed by the lines $W_3 >= 0$, $W_2 >= 0$ and $W_3 + W_2 <= 1$

2) The mean return for bsedata is **-0.27564** and risk is **0.01618**.
The mean return for bsedata is **-0.1792** and risk is **0.01304**.

The obtained Beta Values are as follows:

BSE Data

Mean = -0.27564587374194616
Var = 0.016188757399922045
(16, 1233)

Company	Beta Value
AXISBANK	[0.99726446]
BHARTIARTL	[1.01139303]
HDFCBANK	[0.99065815]
HEROMOTOCO	[1.00989349]
HINDUNILVR	[0.97847265]
INFY	[0.99666162]
ITC	[1.00938078]
M&M	[1.01560036]
SBIN	[1.01645501]
TCS	[0.99092813]
IOC	[1.02309933]
HEIDELBERG	[1.0302397]
GODREJIND	[1.01248878]
EMAMILTD	[1.0121726]
CUMMINSIND	[1.01552975]
BALMLAWRIE	[1.03148711]

NSE Data

Mean = -0.17922326748800219
Var = 0.013048914760020527
(16, 1233)

Company	Beta Value
AXISBANK	[0.99726446]
BHARTIARTL	[1.01139303]
HDFCBANK	[0.99065815]
HEROMOTOCO	[1.00989349]
HINDUNILVR	[0.97847265]
INFY	[0.99666162]
ITC	[1.00938078]
M&M	[1.01560036]
SBIN	[1.01645501]
TCS	[0.99092813]
IOC	[1.02309933]
HEIDELBERG	[1.0302397]
GODREJIND	[1.01248878]
EMAMILTD	[1.0121726]
CUMMINSIND	[1.01552975]
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