# Portforlio selection Web Application using R

This project required below feature set developed

1. Pull data from web and view the tickers
2. Searching for assets from Exchanges –AMEX, NASDAQ,NYSE
3. Grouping assets
4. Create portfolios and visualise
5. Back test portfolios

A web application was developed using R shiny. And the analysis was done using R

1.Pull data and view the tickers
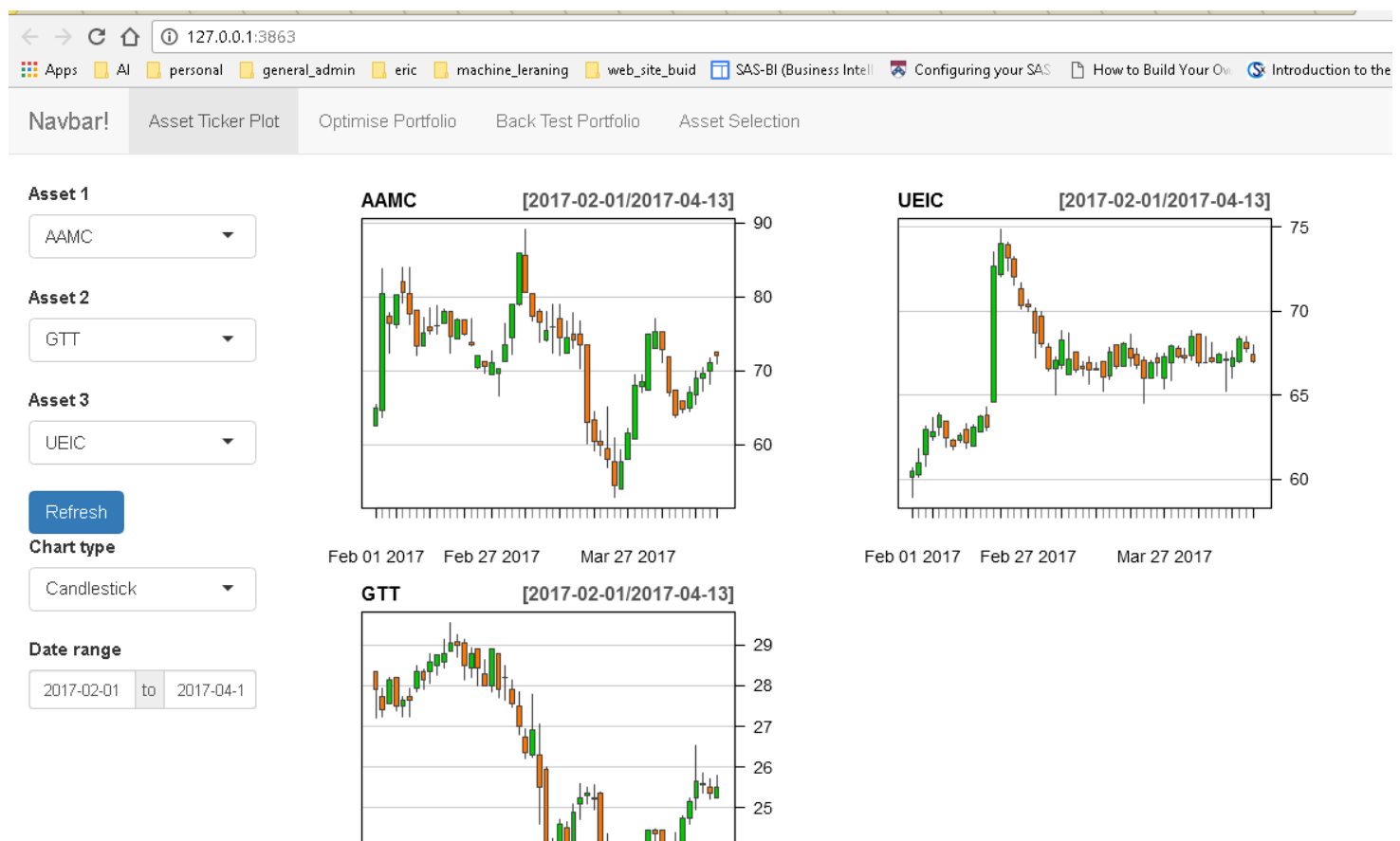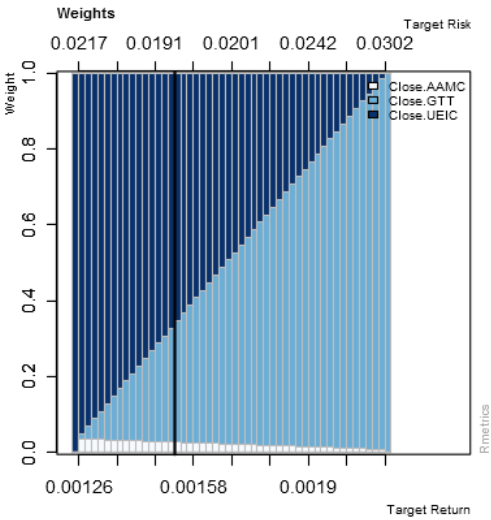
2. Create portfolios and get plots
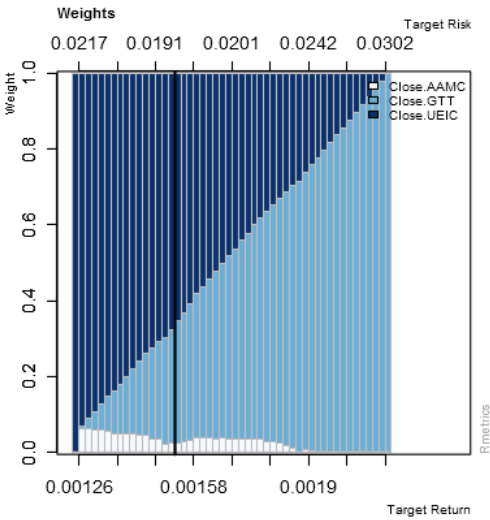
Constraints
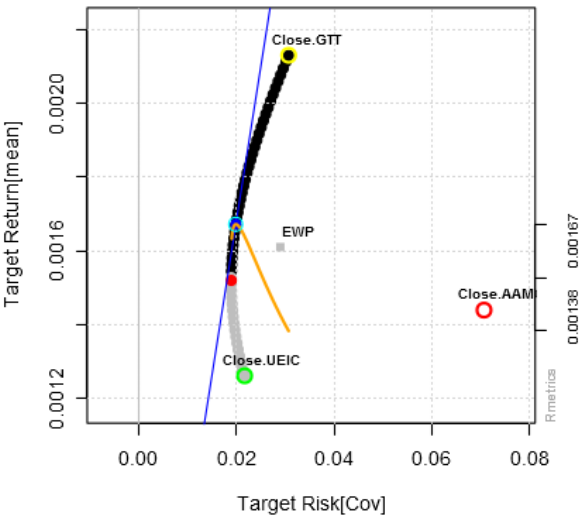
LongOnly ▼

boxConstraints

0.07   0.5   1

0 0.1 0.2   0.4   0.6   0.8   1

Refresh

Mean-Variance Portfolio

Weights
0.0217 0.0191 0.0201 0.0242 0.0302   Target Risk

Weight

□ Close.AAMC
□ Close.GTT
■ Close.UEIC

0.00126   0.00158   0.0019   Target Return

Mean-CVar Portfolio

Weights
0.0217 0.0191 0.0201 0.0242 0.0302   Target Risk

Weight

□ Close.AAMC
□ Close.GTT
■ Close.UEIC

0.00126   0.00158   0.0019   Target Return

Efficient Frontier

Target Return[mean]

Close.GTT

EWP

Close.AAM

Close.UEIC

0.00167

0.00138

0.00 0.02 0.04 0.06 0.08

Target Risk[Cov]

Efficient Frontier

Target Return[mean]

Close.GTT

EWP

Close.AAM

Close.UEIC

0.00163

0.00127

0.00 0.05 0.10 0.15

Target Risk[CVaR]

3. Back test portfolios

Refresh

Index Series
eqw ~ C.AA - C.GT - C.UE

Weights Recommendation
Horizon = 18m | Smoothing: 6m | Startup: 1m | Shift 1m

Weights Rebalance
Horizon = 18 | Smoothing: 6m | Startup: 1m | Shift 1m

Portfolio vs Benchmark
Horizon = 18m | Smoothing: 6m | Startup: 1m | Shift 1m

Portfolio vs Benchmark

(Max) Portfolio DD = -0.01 | Benchmark DD = -0.04
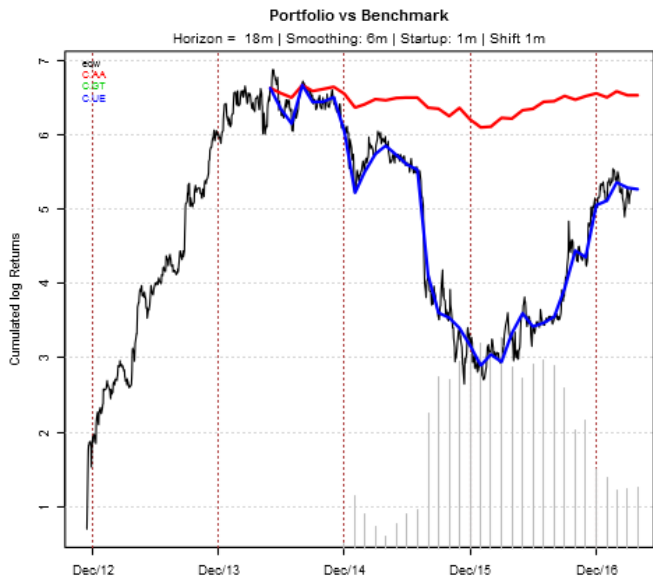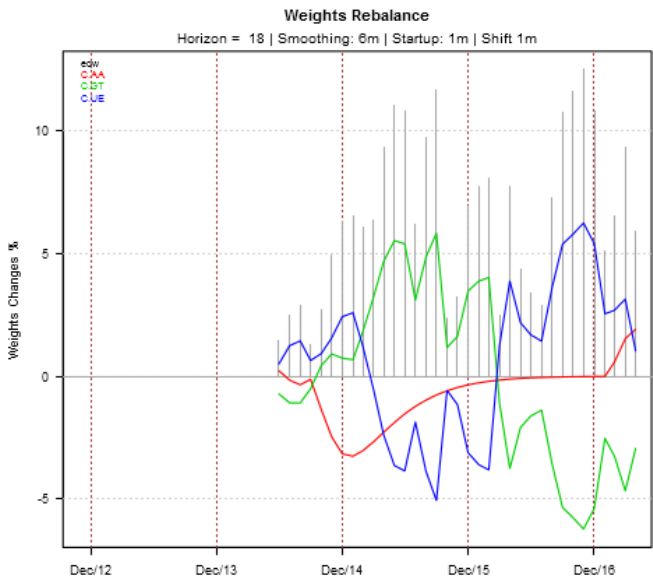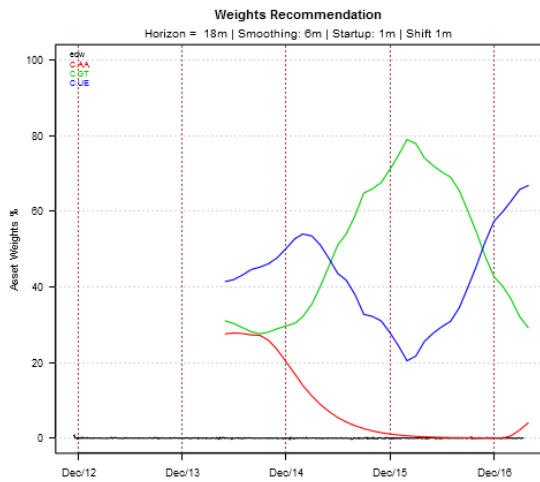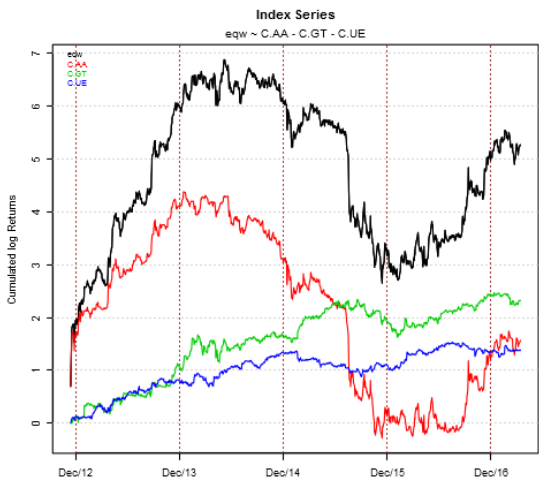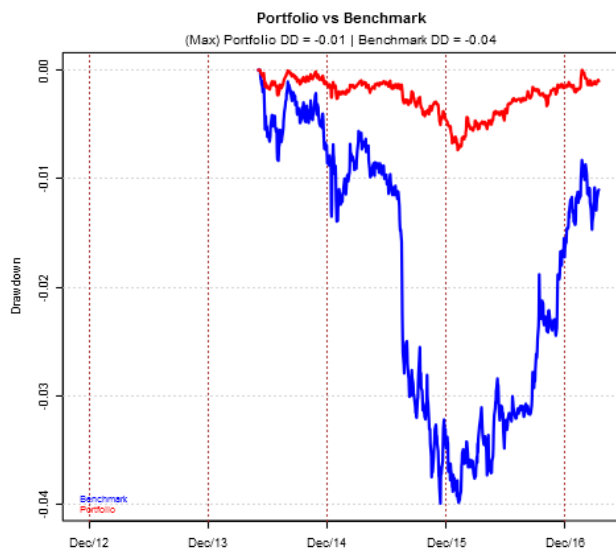
Strategy: tangencyStrategy

	Portfolio	Benchmark
Total Return	-0.10	-1.36
Mean Return	0.00	-0.04
StandardDev Return	0.08	0.39
Maximum Loss	-0.18	-1.42

Portfolio Specification:
Type: MV
Optimize: minRisk
Estimator: covEstimator

Constraints:
"LongOnly"

4.Searching for assets

Exchange
- ☐ AMEX
- ☑ NASDAQ
- ☐ NYSE

Sector
- ☑ Finance
- ☐ Basic Industries
- ☐ NA
- ☐ Capital Goods
- ☐ Technology
- ☐ Public Utilities
- ☐ Health Care
- ☐ Energy
- ☐ Consumer Services
- ☐ Consumer Non-Durables
- ☐ Miscellaneous
- ☐ Consumer Durables
- ☐ Transportation

Selected Assets

Show 10 ▼ entries   Search: [   ]

	Symbol	Name	LastSale	MarketCap	IPOyear	Sector	Industry	Exchange
920	CIGI	Colliers International Group Inc.	47.5	$1.78B		Finance	Real Estate	NASDAQ
1017	CRESY	Cresud S.A.C.I.F. y A.	20.9	$1.05B	1997	Finance	Real Estate	NASDAQ
1482	FRPH	FRP Holdings, Inc.	38.6	$382.68M		Finance	Real Estate	NASDAQ
1497	FSV	FirstService Corporation	59.77	$2.06B		Finance	Real Estate	NASDAQ
1616	GOV	Government Properties Income Trust	22.21	$1.58B	2009	Finance	Real Estate	NASDAQ
1617	GOVNI	Government Properties Income Trust	25.02			Finance	Real Estate	NASDAQ
1632	GRIF	Griffin Industrial Realty, Inc.	31.25	$156.27M		Finance	Real Estate	NASDAQ
1700	HGSH	China HGS Real Estate, Inc.	1.73	$77.94M		Finance	Real Estate	NASDAQ
1815	ILG	ILG, Inc	21.32	$2.65B		Finance	Real Estate	NASDAQ
2212	MMAC	MMA Capital Management, LLC	23.4	$136.64M		Finance	Real Estate	NASDAQ

Showing 1 to 10 of 12 entries   Previous [1] 2 Next

Industry
- ☑ Real Estate
- ☐ Precious Metals
- ☐ NA
- ☐ Industrial Machinery/Components
- ☐ Diversified Commercial Services
- ☐ Power Generation
- ☐ Hospital/Nursing Management
- ☐ Oil Refining/Marketing
- ☐ Real Estate Investment Trusts
- ☐ Professional Services
- ☐ Military/Government/Technical
- ☐ Mining & Quarrying of Nonmetallic Minerals (No Fuels)
- ☐ Packaged Foods
- ☐ Major Pharmaceuticals
- ☐ Medical Specialities
- ☐ Biotechnology: Biological Products (No Diagnostic Substances)
- ☐ Industrial Specialties
- ☐ Business Services
- ☐ Environmental Services
- ☐ Restaurants
- ☐ Radio And Television

5.Grouping assets

Cluster Dendrogram

Distance Metric: Euclidean