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  - –R
    - Rserve R
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SQLJava

Yellowfin

	100%
1-9	1-91
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N	N
9-1	9-11
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	10-1
Deviation	
Linear Regression	
Mean	
Median	
Mode	
Moving Average	22
Moving Total	N
Naïve Forecasting	1tt-1
Polynomial Regression	23
Quartile	4-1
Standard Deviation	
Standard Score	
Stepped Regression	
Trend	
Triple Exponential Smoothing	
Variance	
Weighted Moving Average	

	2

1,000

–R

R

Rserve R
YellowfinR

1. **Yellowfin-R jar**Yellowfin/appserver/webapps/ROOT/WEB-INF/lib
2. **R**
3. **Rserve**RserveTCP/IPRRR install.packages("Rserve")
   install.packages("magrittr")
   install.packages("rattle") (linux requires special installation)
4. **Rserve**YellowfinRRserveR
   library(Rserve)
   Rserve()
5. R**RSCRIPT_PATH**RRSCRIPT_PATH
   RSCRIPT_PATH=/home/foo/Rscripts

R
YellowfinR

<R_file_name>.RYellowfin<R_file_name>.R.input.csvR<R_file_name>.R.result.csv

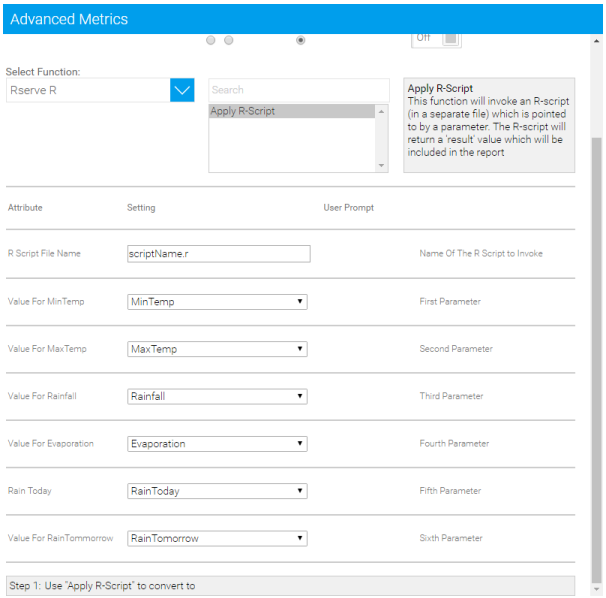
Neural NetworksRR

Sample R-Script : neural-net-script.R

```
setwd("C:/R/R-3.2.3/bin/x64")
library(rattle)   #
To access the weather dataset and utility commands.
library(magrittr) # For the
%>% and %<>% operators.
building <- TRUE
scoring  <- ! building
# A pre-defined value is used
to reset the random seed so that results are repeatable.
crv$seed <- 42
# Load the data.
rPATH  <-
Sys.getenv("RSCRIPT_PATH")
rINPUT <- paste0(rPATH ,"/neural-net-script.r.input.csv")
rOUTPUT <- paste0(rPATH
,"/neural-net-script.r.result.csv")
dataset <-
read.csv(file=rINPUT, header=FALSE, sep=",")
# Note the user
selections.
# Build the
training/validate/test datasets.
set.seed(crv$seed)
crs$nobs <- nrow(dataset) #
366 observations
crs$sample <- crs$train
<- sample(nrow(dataset), 0.7*crs$nobs) # 256 observations
crs$validate <-
sample(setdiff(seq_len(nrow(dataset)), crs$train), 0.15*crs$nobs) # 54
observations
crs$test <-
setdiff(setdiff(seq_len(nrow(dataset)), crs$train), crs$validate) # 56
observations
# The following variable
selections have been noted.
crs$input <-
c("V1", "V2", "V3", "V4","V5")
crs$target
<- "V6"
#============================================================
# Neural Network
#============================================================
# Build a neural network model
using the nnet package.
library(nnet, quietly=TRUE)
# Build the NNet model.

set.seed(199)
crs$nnet <-
nnet(as.factor(V6) ~ .,data=dataset[crs$sample,c(crs$input, crs$target)],size=10,
skip=TRUE, MaxNWts=10000, trace=FALSE, maxit=100)
#============================================================
# Score a dataset.
#============================================================
# Obtain probability scores for
the Neural Net model on weather.csv [validate].
#crs$pr <- predict(crs$nnet,
newdata=dataset[crs$validate, c(crs$input)], type="class")
#crs$pr <- predict(crs$nnet,
newdata=dataset[crs$validate, c(crs$input)], type="class")
crs$pr <- predict(crs$nnet,
newdata=dataset, type="class")
write.table(crs$pr,
file=rOUTPUT, row.names=FALSE, col.names = FALSE)
```

R



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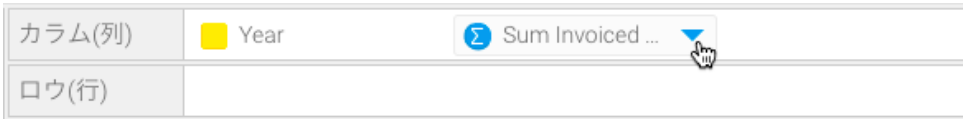
210

1.

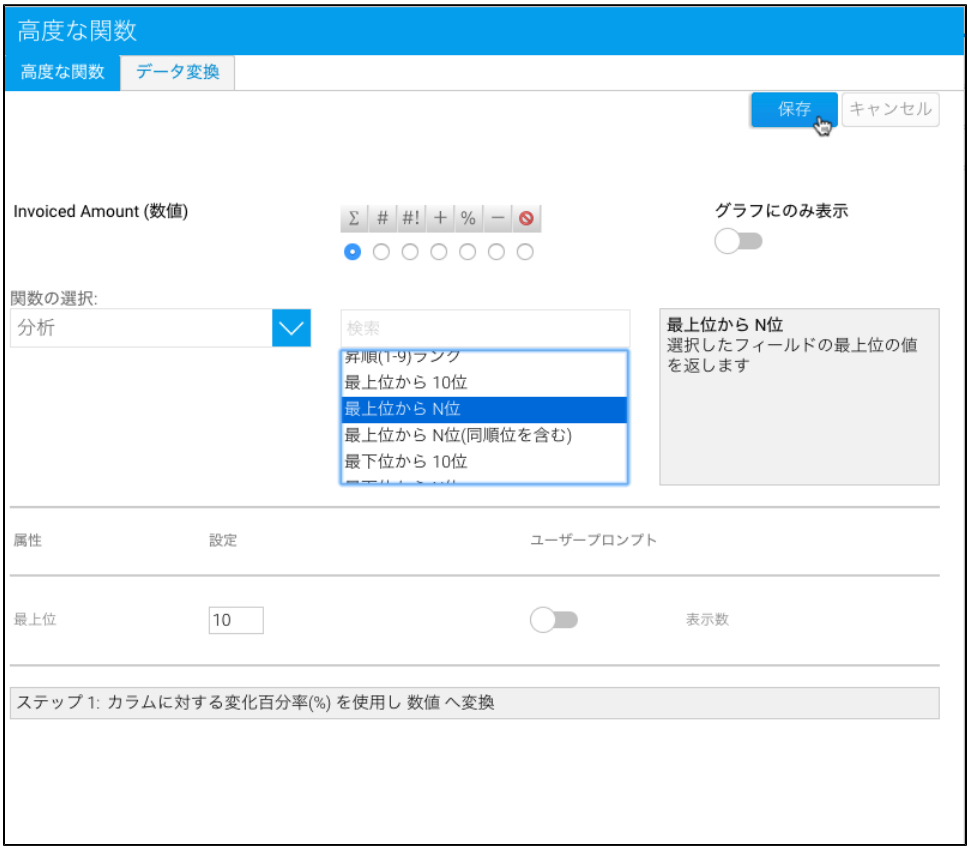
a. /



b.

Year	Sum Invoiced Amount
2009	$17,633,473
2010	$8,611,470
2011	$11,012,244
2012	$81,690,100
2013	$158,353,519
2014	$152,912,577
2015	$28,207,858
2016	$12,522,605

2.

3. 

   a.
   b.
   c.
   d.
4.

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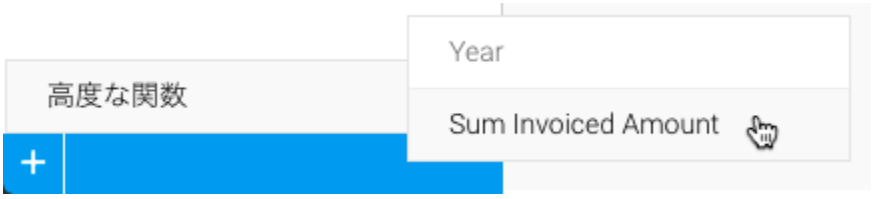
1. +



2.
3.
   a.
   b.
   c.
   d.
4.

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1.

Year	Sum Invoiced Amount
2009	$17,633,473
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2.
3.
    a.
    b.
    c.
    d.
4.

1.
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3.
4. **Java**1,000
5.
6.