Flip Coin Combination Problem

UC 1 : As a Simulator start with Flipping a Coin to Display Heads or Tails

**Output :**

suraj@DESKTOP-TFH17A1 MINGW64 ~/codin club/S\_D\_T\_Flip\_coin\_Simulation (UC-1-FlippingCoin)

$ ./flipCoinCombination.sh

-----------------------Flip coin Combination-------------------------

Head

UC 2 : As a simulator, loop through Multiple times of flipping a coin store the Singlet Combination in a Dictionary. Finally determine the percentage of the Singlet Combination.

**Output :**

suraj@DESKTOP-TFH17A1 MINGW64 ~/codin club/S\_D\_T\_Flip\_coin\_Simulation (UC-2-SingletCombination)

$ ./flipCoinCombination.sh

-----------------------Flip coin Combination-------------------------

Heades = 10 & Tails = 11 Out of = 21

H H T T T H T T H T H H H T T T H T T H H

H : 10

T : 11

Head = 47.619 %

Tail = 52.381 %

UC 3 : As a simulator, loop to create a Doublet Combination. Store the doublet combination as well as the percentage.

**Output :**

suraj@DESKTOP-TFH17A1 MINGW64 ~/codin club/S\_D\_T\_Flip\_coin\_Simulation (UC-3-DoubletCombination)

$ ./flipCoinCombination.sh

-----------------------Flip coin Combination-------------------------

Heades = 10 & Tails = 11 Out of = 21

H H H T H H H T T T H T T H T T T H T T H

HT HH TH HT HH HH TH TT TH HT TT TH HT TT TT TH HT TT TH HH

Counting all :

H : 10

T : 11

HH : 4

HT : 5

TH : 6

TT : 5

Percentage of all :

H = 47.619 %

T = 52.381 %

HH = 20 %

HT = 25 %

TH = 30 %

TT = 25 %

UC 4 : As a simulator, do the same for Triplet Combination.

**Output :**

suraj@DESKTOP-TFH17A1 MINGW64 ~/codin club/S\_D\_T\_Flip\_coin\_Simulation (UC-4-TripletCombination)

$ ./flipCoinCombination.sh

-----------------------Flip coin Combination-------------------------

Total Singlet Combination = 21

H H T H H H T T H H T T T T T T H H T T H

Total Doublet Combination = 20

HH TH HT HH HT TH TT HT HH TH TT TT TT TT TH HH HT TT TH HH

Total Triplet Combination = 19

HHT THH HTH HHT HTH THT TTH HTT THH TTT TTT TTT TTH THH HHT HTT TTH THH HHH

Counting all :

H : 10

T : 11

HH : 5

HT : 4

TH : 5

TT : 6

HHH : 1

HHT : 3

HTH : 2

HTT : 2

THH : 4

THT : 1

TTH : 3

TTT : 3

Percentage of all :

H = 47.619 %

T = 52.381 %

HH = 25 %

HT = 20 %

TH = 25 %

TT = 30 %

HHH = 5.26316 %

HHT = 15.7895 %

HTH = 10.5263 %

HTT = 10.5263 %

THH = 21.0526 %

THT = 5.26316 %

TTH = 15.7895 %

TTT = 15.7895 %

UC 5 : As a simulator, sort the Singlet, Doublet and Triplet combination and show the winning combination.

**Output :**

suraj@DESKTOP-TFH17A1 MINGW64 ~/codin club/S\_D\_T\_Flip\_coin\_Simulation (master)

$ ./flipCoinCombination.sh

-----------------------Flip coin Combination-------------------------

How many time you want flip coin ;

25

Total Singlet Combination = 25

H H T T T T T H H H H H H T T H H H T T T H H T H

Total Doublet Combination = 24

HT TH TT TH TH TT HT HH HT HH HH HH TT TT HH HH HT TT TT TH HH HT TH HH

Total Triplet Combination = 23

HTH TTH THT THH TTH HTT HHT HTT HHT HHH HHH TTT TTT HHH HHT HTT TTT TTH THH HHT HTH THH HHH

Counting all Combination :

H : 14

T : 11

HH : 8

HT : 5

TH : 5

TT : 6

HHH : 4

HHT : 4

HTH : 2

HTT : 3

THH : 3

THT : 1

TTH : 3

TTT : 3

Percentage of all Combination :

H = 56 %

T = 44 %

HH = 33.3333 %

HT = 20.8333 %

TH = 20.8333 %

TT = 25 %

HHH = 17.3913 %

HHT = 17.3913 %

HTH = 8.69565 %

HTT = 13.0435 %

THH = 13.0435 %

THT = 4.34783 %

TTH = 13.0435 %

TTT = 13.0435 %

Winner in Singlet Combination

56 % = H

Winner in Doublet Combination

33.3333 % = HH

Winner in Triplet Combination

17.3913 % = HHT

Winner in all Combination

56 % = H