

# FML ASSIGNMENT 1-811296474

2023-09-09

#Step1: Importing the data #Source of Dataset:<https://www.kaggle.com/datasets/gadigevishalsai/sachin-tendulkar-100-centuries> (<https://www.kaggle.com/datasets/gadigevishalsai/sachin-tendulkar-100-centuries>)

```
bhargav1<-read.csv("C:/Users/BHARGAV/OneDrive/Desktop/The Dataset.csv")  
bhargav1
```

##	Century.Number	Runs.Scored	Balls.Faced	Strike.Rate	Mode.Of.Dismissal
## 1	1	119	189	62.96	Not Out
## 2	2	148	213	69.48	Not Out
## 3	3	114	161	70.80	Caught
## 4	4	111	270	41.11	Caught
## 5	5	165	296	55.74	Caught
## 6	6	104	161	64.59	Not Out
## 7	7	142	224	63.39	Caught
## 8	8	110	130	84.61	Bowled
## 9	9	115	136	84.55	Run Out
## 10	10	105	134	78.35	Caught
## 11	11	179	322	55.59	Caught
## 12	12	112	107	104.67	Not Out
## 13	13	127	138	92.02	Not Out
## 14	14	137	137	100.00	Run Out
## 15	15	100	111	90.09	Stumped
## 16	16	118	140	84.28	Caught
## 17	17	122	263	68.92	Caught
## 18	18	177	360	49.16	Caught
## 19	19	110	138	79.71	Run Out
## 20	20	114	126	90.47	Stumped
## 21	21	169	254	66.53	Caught
## 22	22	104	97	107.21	Caught
## 23	23	117	137	85.40	Bowled
## 24	24	143	247	57.89	Caught
## 25	25	139	266	52.25	Caught
## 26	26	148	244	60.65	Bowled
## 27	27	155	191	81.15	Not Out
## 28	28	177	207	85.50	Bowled
## 29	29	100	89	112.35	Caught
## 30	30	143	131	109.16	Caught
## 31	31	134	131	102.29	LBW
## 32	32	100	103	97.08	Not Out
## 33	33	128	131	97.70	Stumped
## 34	34	127	130	97.69	Not Out
## 35	35	141	128	110.15	Run Out
## 36	36	118	112	105.35	Not Out
## 37	37	124	92	134.78	Not Out
## 38	38	113	151	74.83	Caught
## 39	39	136	273	49.81	Caught
## 40	40	124	235	52.76	Not Out
## 41	41	140	101	138.61	Not Out
## 42	42	120	141	85.10	Caught
## 43	43	126	248	50.80	Not Out
## 44	44	217	344	63.08	Caught
## 45	45	186	150	124.00	Not Out
## 46	46	116	191	60.73	Caught
## 47	47	122	138	88.40	Caught
## 48	48	101	140	72.14	Run Out
## 49	49	122	233	52.36	Caught
## 50	50	201	281	71.53	Not Out
## 51	51	146	153	95.42	Caught

## 52	52	126	230	54.78	Caught
## 53	53	139	125	111.20	Caught
## 54	54	122	131	93.12	Not Out
## 55	55	101	129	78.29	Caught
## 56	56	146	132	110.60	Caught
## 57	57	155	184	84.23	Caught
## 58	58	103	197	52.28	Caught
## 59	59	176	316	55.69	Caught
## 60	60	117	260	45.00	LBW
## 61	61	105	108	97.22	Not Out
## 62	62	113	102	110.78	Caught
## 63	63	193	330	58.48	LBW
## 64	64	176	298	55.69	Caught
## 65	65	152	151	100.66	Bowled
## 66	66	100	119	84.03	Caught
## 67	67	102	91	112.08	Caught
## 68	68	241	436	55.27	Not Out
## 69	69	141	135	104.44	Caught
## 70	70	194	348	55.74	Not Out
## 71	71	248	379	65.43	Not Out
## 72	72	123	130	94.61	Bowled
## 73	73	109	196	55.61	LBW
## 74	74	100	113	88.49	LBW
## 75	75	141	148	95.27	Not Out
## 76	76	100	76	131.57	Not Out
## 77	77	101	169	59.76	Caught
## 78	78	122	226	53.98	Not Out
## 79	79	154	243	63.37	Not Out
## 80	80	153	205	74.63	Caught
## 81	81	117	120	97.50	Not Out
## 82	82	109	188	57.97	LBW
## 83	83	103	196	52.55	Not Out
## 84	84	163	133	122.55	Not Out
## 85	85	160	260	61.53	Caught
## 86	86	138	133	103.75	LBW
## 87	87	175	141	124.11	Caught
## 88	88	100	211	47.39	Not Out
## 89	89	105	166	63.25	Not Out
## 90	90	143	182	78.57	Caught
## 91	91	100	179	55.86	Bowled
## 92	92	106	206	51.45	Caught
## 93	93	200	147	136.05	Not Out
## 94	94	203	347	58.50	Caught
## 95	95	214	363	58.95	Bowled
## 96	96	111	241	46.05	Not Out
## 97	97	146	314	46.49	Bowled
## 98	98	120	115	104.34	Caught
## 99	99	111	101	109.90	Caught
## 100	100	114	147	77.55	Caught
##	Captain Player.Of.The.Match			Against	Format Position
## 1	Mohammad Azharuddin	Sachin Tendulkar	England	Test Match	6
## 2	Mohammad Azharuddin	Ravi Shastri	Australia	Test Match	6

## 3	Mohammad Azharuddin	Mike Whitney	Australia	Test Match	4
## 4	Mohammad Azharuddin	Brian McMillan	South Africa	Test Match	4
## 5	Mohammad Azharuddin	Sachin Tendulkar	England	Test Match	4
## 6	Mohammad Azharuddin	Manoj Prabhakar	Sri Lanka	Test Match	4
## 7	Mohammad Azharuddin	Anil Kumble	Sri Lanka	Test Match	4
## 8	Mohammad Azharuddin	Sachin Tendulkar	Australia	ODI	2
## 9	Mohammad Azharuddin	Sachin Tendulkar	New Zealand	ODI	2
## 10	Mohammad Azharuddin	Carl Hooper	West Indies	ODI	2
## 11	Mohammad Azharuddin	Carl Hooper	West Indies	Test Match	4
## 12	Mohammad Azharuddin	Sachin Tendulkar	Sri Lanka	ODI	2
## 13	Mohammad Azharuddin	Sachin Tendulkar	Kenya	ODI	2
## 14	Mohammad Azharuddin	Sanath Jayasuriya	Sri Lanka	ODI	2
## 15	Mohammad Azharuddin	Aamer Sohail	Pakistan	ODI	2
## 16	Mohammad Azharuddin	Sachin Tendulkar	Pakistan	ODI	2
## 17	Mohammad Azharuddin	Nasser Hussain	England	Test Match	4
## 18	Mohammad Azharuddin	Sourav Ganguly	England	Test Match	4
## 19	Sachin Tendulkar	Sanath Jayasuriya	Sri Lanka	ODI	2
## 20	Sachin Tendulkar	Sachin Tendulkar	South Africa	ODI	1
## 21	Sachin Tendulkar	Brian McMillan	South Africa	Test Match	5
## 22	Sachin Tendulkar	Sachin Tendulkar	Zimbabwe	ODI	1
## 23	Sachin Tendulkar	Sachin Tendulkar	New Zealand	ODI	2
## 24	Sachin Tendulkar	Sanath Jayasuriya	Sri Lanka	Test Match	4
## 25	Sachin Tendulkar	Aravinda de Silva	Sri Lanka	Test Match	4
## 26	Sachin Tendulkar	Sourav Ganguly	Sri Lanka	Test Match	5
## 27	Mohammad Azharuddin	Sachin Tendulkar	Australia	Test Match	4
## 28	Mohammad Azharuddin	Michael Kasprowicz	Australia	Test Match	4
## 29	Mohammad Azharuddin	Sachin Tendulkar	Australia	ODI	2
## 30	Mohammad Azharuddin	Sachin Tendulkar	Australia	ODI	2
## 31	Mohammad Azharuddin	Sachin Tendulkar	Australia	ODI	2
## 32	Mohammad Azharuddin	Sachin Tendulkar	Kenya	ODI	2
## 33	Mohammad Azharuddin	Sachin Tendulkar	Sri Lanka	ODI	2
## 34	Mohammad Azharuddin	Sachin Tendulkar	Zimbabwe	ODI	2
## 35	Mohammad Azharuddin	Sachin Tendulkar	Australia	ODI	2
## 36	Mohammad Azharuddin	Sachin Tendulkar	Zimbabwe	ODI	2
## 37	Mohammad Azharuddin	Sachin Tendulkar	Zimbabwe	ODI	2
## 38	Mohammad Azharuddin	Simon Doull	New Zealand	Test Match	5
## 39	Mohammad Azharuddin	Sachin Tendulkar	Pakistan	Test Match	4
## 40	Mohammad Azharuddin	Mahela Jayawardene	Sri Lanka	Test Match	4
## 41	Mohammad Azharuddin	Sachin Tendulkar	Kenya	ODI	4
## 42	Sachin Tendulkar	Robin Singh	Sri Lanka	ODI	1
## 43	Sachin Tendulkar	Javagal Srinath	New Zealand	Test Match	4
## 44	Sachin Tendulkar	Sachin Tendulkar	New Zealand	Test Match	4
## 45	Sachin Tendulkar	Sachin Tendulkar	New Zealand	ODI	2
## 46	Sachin Tendulkar	Sachin Tendulkar	Australia	Test Match	4
## 47	Sourav Ganguly	Sachin Tendulkar	South Africa	ODI	2
## 48	Sourav Ganguly	Sachin Tendulkar	Sri Lanka	ODI	2
## 49	Sourav Ganguly	Javagal Srinath	Zimbabwe	Test Match	4
## 50	Sourav Ganguly	Andy Flower	Zimbabwe	Test Match	4
## 51	Sourav Ganguly	Grant Flower	Zimbabwe	ODI	2
## 52	Sourav Ganguly	Matthew Hayden	Australia	Test Match	4
## 53	Sourav Ganguly	Sachin Tendulkar	Australia	ODI	2
## 54	Sourav Ganguly	Sachin Tendulkar	West Indies	ODI	2

## 55	Sourav Ganguly	Gary Kirsten	South Africa	ODI	2
## 56	Sourav Ganguly	Sachin Tendulkar	Kenya	ODI	2
## 57	Sourav Ganguly	Shaun Pollock	South Africa	Test Match	4
## 58	Sourav Ganguly	Craig White	England	Test Match	4
## 59	Sourav Ganguly	Anil Kumble	Zimbabwe	Test Match	4
## 60	Sourav Ganguly	VVS Laxman	West Indies	Test Match	4
## 61	Sourav Ganguly	No One	England	ODI	4
## 62	Sourav Ganguly	Sachin Tendulkar	Sri Lanka	ODI	4
## 63	Sourav Ganguly	Rahul Dravid	England	Test Match	4
## 64	Sourav Ganguly	Sachin Tendulkar	West Indies	Test Match	4
## 65	Sourav Ganguly	Sachin Tendulkar	Namibia	ODI	2
## 66	Rahul Dravid	Sachin Tendulkar	Australia	ODI	2
## 67	Sourav Ganguly	Virender Sehwag	New Zealand	ODI	2
## 68	Sourav Ganguly	Sachin Tendulkar	Australia	Test Match	4
## 69	Sourav Ganguly	Sachin Tendulkar	Pakistan	ODI	2
## 70	Rahul Dravid	Virender Sehwag	Pakistan	Test Match	4
## 71	Rahul Dravid	Irfan Pathan	Bangladesh	Test Match	4
## 72	Sourav Ganguly	Inzamam-ul-Haq	Pakistan	ODI	2
## 73	Rahul Dravid	Anil Kumble	Sri Lanka	Test Match	4
## 74	Rahul Dravid	Salman Butt	Pakistan	ODI	2
## 75	Rahul Dravid	Sachin Tendulkar	West Indies	ODI	2
## 76	Rahul Dravid	Sachin Tendulkar	West Indies	ODI	4
## 77	Rahul Dravid	Mashrafe Mortaza	Bangladesh	Test Match	4
## 78	Rahul Dravid	Zaheer Khan	Bangladesh	Test Match	4
## 79	Anil Kumble	Andrew Symonds	Australia	Test Match	4
## 80	Anil Kumble	Sachin Tendulkar	Australia	Test Match	4
## 81	MS Dhoni	Sachin Tendulkar	Australia	ODI	1
## 82	MS Dhoni	Jason Krejza	Australia	Test Match	4
## 83	MS Dhoni	Virender Sehwag	England	Test Match	4
## 84	MS Dhoni	Sachin Tendulkar	New Zealand	ODI	2
## 85	MS Dhoni	Sachin Tendulkar	New Zealand	Test Match	4
## 86	MS Dhoni	Sachin Tendulkar	Sri Lanka	ODI	1
## 87	MS Dhoni	Sachin Tendulkar	Australia	ODI	2
## 88	MS Dhoni	Mahela Jayawardene	Sri Lanka	Test Match	5
## 89	Virender Sehwag	Sachin Tendulkar	Bangladesh	Test Match	4
## 90	MS Dhoni	Zaheer Khan	Bangladesh	Test Match	4
## 91	MS Dhoni	Hashim Amla	South Africa	Test Match	4
## 92	MS Dhoni	Hashim Amla	South Africa	Test Match	4
## 93	MS Dhoni	Sachin Tendulkar	South Africa	ODI	2
## 94	MS Dhoni	Kumar Sangakkara	Sri Lanka	Test Match	4
## 95	MS Dhoni	Sachin Tendulkar	Australia	Test Match	4
## 96	MS Dhoni	Jacques Kallis	South Africa	Test Match	5
## 97	MS Dhoni	Jacques Kallis	South Africa	Test Match	4
## 98	MS Dhoni	Andrew Strauss	England	ODI	2
## 99	MS Dhoni	Dale Steyn	South Africa	ODI	2
## 100	Virat Kohli	Shakib Al Hasan	Bangladesh	ODI	2
##	Innings		Venue	City	
## 1	4		Old Trafford	Manchester	
## 2	2		Sydney Cricket Ground	Sydney	
## 3	2		WACA Ground	Perth	
## 4	2		Wanderers Stadium	Johannesburg	
## 5	1		MA Chidambaram Stadium	Chennai	

## 6	3	Sinhalese Sports Club Ground	Colombo
## 7	1	KD Singh Babu Stadium	Lucknow
## 8	1	R Premadasa Stadium	Colombo
## 9	2	IPCL Sports Complex Ground	Vadodara
## 10	1	Sawai Mansingh Stadium	Jaipur
## 11	1	Vidarbha Cricket Association Ground	Nagpur
## 12	2	Sharjah Cricket Association Stadium	Sharjah
## 13	2	Barabati Stadium	Cuttack
## 14	1	Feroz Shah Kotla Ground	New Delhi
## 15	1	Padang	Singapore
## 16	1	Sharjah Cricket Association Stadium	Sharjah
## 17	3	Edgbaston	Birmingham
## 18	1	Trent Bridge	Nottingham
## 19	1	R Premadasa Stadium	Colombo
## 20	1	Wankhede Stadium	Mumbai
## 21	2	Newlands Cricket Ground	Cape Town
## 22	1	Willowmoore Park	Benoni
## 23	2	M Chinnaswamy Stadium	Bangalore
## 24	1	R Premadasa Stadium	Colombo
## 25	2	Sinhalese Sports Club Ground	Colombo
## 26	1	Wankhede Stadium	Mumbai
## 27	3	MA Chidambaram Stadium	Chennai
## 28	1	M Chinnaswamy Stadium	Bangalore
## 29	2	Green Park Stadium	Kanpur
## 30	2	Sharjah Cricket Association Stadium	Sharjah
## 31	2	Sharjah Cricket Association Stadium	Sharjah
## 32	2	Eden Gardens	Kolkata
## 33	1	R Premadasa Stadium	Colombo
## 34	2	Queens Sports Club	Bulawayo
## 35	1	Bangabandhu National Stadium	Dhaka
## 36	2	Sharjah Cricket Association Stadium	Sharjah
## 37	2	Sharjah Cricket Association Stadium	Sharjah
## 38	3	Basin Reserve	Wellington
## 39	4	MA Chidambaram Stadium	Chennai
## 40	3	Sinhalese Sports Club Ground	Colombo
## 41	1	County Ground	Bristol
## 42	1	Sinhalese Sports Club Ground	Colombo
## 43	3	Punjab Cricket Association Stadium	Mohali
## 44	1	Sardar Patel Stadium	Ahmedabad
## 45	1	Lal Bahadur Shastri Stadium	Hyderabad
## 46	2	Melbourne Cricket Ground	Melbourne
## 47	2	IPCL Sports Complex Ground	Vadodara
## 48	1	Sharjah Cricket Association Stadium	Sharjah
## 49	2	Feroz Shah Kotla Ground	New Delhi
## 50	1	Vidarbha Cricket Association Ground	Nagpur
## 51	1	Barkatullah Khan Stadium	Jodhpur
## 52	2	MA Chidambaram Stadium	Chennai
## 53	1	Nehru Stadium	Indore
## 54	2	Harare Sports Club	Harare
## 55	1	New Wanderers Stadium	Johannesburg
## 56	1	Boland Park	Paarl
## 57	1	Goodyear Park	Bloemfontein

## 58	2	Sardar Patel Stadium	Ahmedabad
## 59	2	Vidarbha Cricket Association Ground	Nagpur
## 60	1	Queen's Park Oval	Port of Spain
## 61	1	Riverside Ground	Chester-le-Street
## 62	1	County Ground	Bristol
## 63	1	Headingley	Leeds
## 64	3	Eden Gardens	Kolkata
## 65	1	City Oval	Pietermaritzburg
## 66	1	Roop Singh Stadium	Gwalior
## 67	1	Lal Bahadur Shastri Stadium	Hyderabad
## 68	1	Sydney Cricket Ground	Sydney
## 69	2	Rawalpindi Cricket Stadium	Rawalpindi
## 70	1	Multan Cricket Stadium	Multan
## 71	2	Bangabandhu National Stadium	Dhaka
## 72	1	Sardar Patel Stadium	Ahmedabad
## 73	1	Feroz Shah Kotla Ground	New Delhi
## 74	1	Arbab Niaz Stadium	Peshawar
## 75	1	Kinrara Academy Oval	Kuala Lumpur
## 76	1	IPCL Sports Complex Ground	Vadodara
## 77	1	Bir Shrestha Shahid Ruhul Amin Stadium	Chittagong
## 78	1	Sher-e-Bangla National Stadium	Mirpur
## 79	2	Sydney Cricket Ground	Sydney
## 80	1	Adelaide Oval	Adelaide
## 81	2	Sydney Cricket Ground	Sydney
## 82	1	Vidarbha Cricket Association Ground	Nagpur
## 83	4	MA Chidambaram Stadium	Chennai
## 84	1	AMI Stadium	Christchurch
## 85	2	Seddon Park	Hamilton
## 86	1	R Premadasa Stadium	Colombo
## 87	2	Rajiv Gandhi International Stadium	Hyderabad
## 88	3	Sardar Patel Stadium	Ahmedabad
## 89	1	Zohur Ahmed Chowdhury Stadium	Chittagong
## 90	2	Sher-e-Bangla National Stadium	Mirpur
## 91	3	Vidarbha Cricket Association Ground	Nagpur
## 92	2	Eden Gardens	Kolkata
## 93	1	Roop Singh Stadium	Gwalior
## 94	2	Sinhalese Sports Club Ground	Colombo
## 95	2	M Chinnaswamy Stadium	Bangalore
## 96	3	SuperSport Park	Centurion
## 97	2	Newlands Cricket Ground	Cape Town
## 98	1	M Chinnaswamy Stadium	Bangalore
## 99	1	VCA Stadium	Nagpur
## 100	1	Sher-e-Bangla National Stadium	Mirpur

##	Venue.	Location	Result
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## 1	Away	Drawn
## 2	Away	Drawn
## 3	Away	Lost
## 4	Away	Drawn
## 5	Home	Won
## 6	Away	Won
## 7	Home	Won
## 8	Neutral	Won

## 9	Home	Won
## 10	Home	Won
## 11	Home	Drawn
## 12	Neutral	Won
## 13	Home	Won
## 14	Home	Lost
## 15	Neutral	Lost
## 16	Neutral	Won
## 17	Away	Lost
## 18	Away	Drawn
## 19	Away	Lost
## 20	Home	Won
## 21	Away	Lost
## 22	Neutral	Won
## 23	Home	Won
## 24	Away	Drawn
## 25	Away	Drawn
## 26	Home	Drawn
## 27	Home	Won
## 28	Home	Lost
## 29	Home	Won
## 30	Neutral	Lost
## 31	Neutral	Won
## 32	Home	Won
## 33	Away	Won
## 34	Away	Won
## 35	Neutral	Won
## 36	Neutral	Won
## 37	Neutral	Won
## 38	Away	Lost
## 39	Home	Lost
## 40	Away	Drawn
## 41	Neutral	Won
## 42	Away	Won
## 43	Home	Drawn
## 44	Home	Drawn
## 45	Home	Won
## 46	Away	Lost
## 47	Home	Won
## 48	Neutral	Lost
## 49	Home	Won
## 50	Home	Drawn
## 51	Home	Lost
## 52	Home	Won
## 53	Home	Won
## 54	Neutral	Won
## 55	Away	Lost
## 56	Neutral	Won
## 57	Away	Lost
## 58	Home	Drawn
## 59	Home	Won
## 60	Away	Won



## 61	Away	N-R
## 62	Neutral	Won
## 63	Away	Won
## 64	Home	Drawn
## 65	Neutral	Won
## 66	Home	Won
## 67	Home	Won
## 68	Away	Drawn
## 69	Away	Lost
## 70	Away	Won
## 71	Away	Won
## 72	Home	Lost
## 73	Home	Won
## 74	Away	Lost
## 75	Neutral	Lost
## 76	Home	Won
## 77	Away	Drawn
## 78	Away	Won
## 79	Away	Lost
## 80	Away	Drawn
## 81	Away	Won
## 82	Home	Won
## 83	Home	Won
## 84	Away	Won
## 85	Away	Won
## 86	Away	Won
## 87	Home	Lost
## 88	Home	Drawn
## 89	Away	Won
## 90	Away	Won
## 91	Home	Lost
## 92	Home	Won
## 93	Home	Won
## 94	Away	Drawn
## 95	Home	Won
## 96	Away	Lost
## 97	Away	Drawn
## 98	Home	Tied
## 99	Home	Lost
## 100	Away	Lost

## #Step2: Descriptive Statistics for Quantitative variables

```
summary(bhargav1)
```

```
## Century.Number      Runs.Scored      Balls.Faced      Strike.Rate
## Min.   : 1.00    Min.   :100.0    Min.   : 76.0    Min.   : 41.11
## 1st Qu.: 25.75    1st Qu.:111.0    1st Qu.:131.0    1st Qu.: 57.95
## Median : 50.50    Median :124.0    Median :157.0    Median : 78.32
## Mean   : 50.50    Mean   :135.6    Mean   :188.2    Mean   : 79.90
## 3rd Qu.: 75.25    3rd Qu.:149.0    3rd Qu.:241.5    3rd Qu.: 97.69
## Max.   :100.00    Max.   :248.0    Max.   :436.0    Max.   :138.61
## Mode.Of.Dismissal    Captain      Player.Of.The.Match    Against
## Length:100          Length:100          Length:100          Length:100
## Class :character     Class :character     Class :character     Class :character
## Mode  :character     Mode  :character     Mode  :character     Mode  :character
##
##
##
##      Format          Position      Innings      Venue
## Length:100          Min.   :1.00    Min.   :1.00    Length:100
## Class :character     1st Qu.:2.00    1st Qu.:1.00    Class :character
## Mode  :character     Median :4.00    Median :1.00    Mode  :character
##                      Mean   :3.14    Mean   :1.63
##                      3rd Qu.:4.00    3rd Qu.:2.00
##                      Max.   :6.00    Max.   :4.00
##      City          Venue.Location      Result
## Length:100          Length:100          Length:100
## Class :character     Class :character     Class :character
## Mode  :character     Mode  :character     Mode  :character
##
##
##
```

```
mean(bhargav1$Runs.Scored)
```

```
## [1] 135.57
```

```
median(bhargav1$Runs.Scored)
```

```
## [1] 124
```

```
sum(bhargav1$Runs.Scored)
```

```
## [1] 13557
```

```
sd(bhargav1$Runs.Scored)
```

```
## [1] 33.33038
```

```
var(bhargav1$Runs.Scored)
```

```
## [1] 1110.914
```

```
max(bhargav1$Runs.Scored)
```

```
## [1] 248
```

```
min(bhargav1$Runs.Scored)
```

```
## [1] 100
```

```
str(bhargav1$Runs.Scored)
```

```
## int [1:100] 119 148 114 111 165 104 142 110 115 105 ...
```

### #Step3: Descriptive Statistics for Categorical Variables

```
table(bhargav1$Captain)
```

```
##
##      Anil Kumble Mohammad Azharuddin      MS Dhoni      Rahul Dravid
##           2           33           18           9
##   Sachin Tendulkar      Sourav Ganguly      Virat Kohli      Virender Sehwag
##           13           23           1           1
```

```
bhargav1$Captain
```

```
## [1] "Mohammad Azharuddin" "Mohammad Azharuddin" "Mohammad Azharuddin"
## [4] "Mohammad Azharuddin" "Mohammad Azharuddin" "Mohammad Azharuddin"
## [7] "Mohammad Azharuddin" "Mohammad Azharuddin" "Mohammad Azharuddin"
## [10] "Mohammad Azharuddin" "Mohammad Azharuddin" "Mohammad Azharuddin"
## [13] "Mohammad Azharuddin" "Mohammad Azharuddin" "Mohammad Azharuddin"
## [16] "Mohammad Azharuddin" "Mohammad Azharuddin" "Mohammad Azharuddin"
## [19] "Sachin Tendulkar" "Sachin Tendulkar" "Sachin Tendulkar"
## [22] "Sachin Tendulkar" "Sachin Tendulkar" "Sachin Tendulkar"
## [25] "Sachin Tendulkar" "Sachin Tendulkar" "Mohammad Azharuddin"
## [28] "Mohammad Azharuddin" "Mohammad Azharuddin" "Mohammad Azharuddin"
## [31] "Mohammad Azharuddin" "Mohammad Azharuddin" "Mohammad Azharuddin"
## [34] "Mohammad Azharuddin" "Mohammad Azharuddin" "Mohammad Azharuddin"
## [37] "Mohammad Azharuddin" "Mohammad Azharuddin" "Mohammad Azharuddin"
## [40] "Mohammad Azharuddin" "Mohammad Azharuddin" "Sachin Tendulkar"
## [43] "Sachin Tendulkar" "Sachin Tendulkar" "Sachin Tendulkar"
## [46] "Sachin Tendulkar" "Sourav Ganguly" "Sourav Ganguly"
## [49] "Sourav Ganguly" "Sourav Ganguly" "Sourav Ganguly"
## [52] "Sourav Ganguly" "Sourav Ganguly" "Sourav Ganguly"
## [55] "Sourav Ganguly" "Sourav Ganguly" "Sourav Ganguly"
## [58] "Sourav Ganguly" "Sourav Ganguly" "Sourav Ganguly"
## [61] "Sourav Ganguly" "Sourav Ganguly" "Sourav Ganguly"
## [64] "Sourav Ganguly" "Sourav Ganguly" "Rahul Dravid"
## [67] "Sourav Ganguly" "Sourav Ganguly" "Sourav Ganguly"
## [70] "Rahul Dravid" "Rahul Dravid" "Sourav Ganguly"
## [73] "Rahul Dravid" "Rahul Dravid" "Rahul Dravid"
## [76] "Rahul Dravid" "Rahul Dravid" "Rahul Dravid"
## [79] "Anil Kumble" "Anil Kumble" "MS Dhoni"
## [82] "MS Dhoni" "MS Dhoni" "MS Dhoni"
## [85] "MS Dhoni" "MS Dhoni" "MS Dhoni"
## [88] "MS Dhoni" "Virender Sehwag" "MS Dhoni"
## [91] "MS Dhoni" "MS Dhoni" "MS Dhoni"
## [94] "MS Dhoni" "MS Dhoni" "MS Dhoni"
## [97] "MS Dhoni" "MS Dhoni" "MS Dhoni"
## [100] "Virat Kohli"
```

```
str(bhargav1$Captain)
```

```
## chr [1:100] "Mohammad Azharuddin" "Mohammad Azharuddin" ...
```

#### #Step4: Transforming The Variables

```
log(bhargav1$Runs.Scored)
```

```
## [1] 4.779123 4.997212 4.736198 4.709530 5.105945 4.644391 4.955827 4.700480
## [9] 4.744932 4.653960 5.187386 4.718499 4.844187 4.919981 4.605170 4.770685
## [17] 4.804021 5.176150 4.700480 4.736198 5.129899 4.644391 4.762174 4.962845
## [25] 4.934474 4.997212 5.043425 5.176150 4.605170 4.962845 4.897840 4.605170
## [33] 4.852030 4.844187 4.948760 4.770685 4.820282 4.727388 4.912655 4.820282
## [41] 4.941642 4.787492 4.836282 5.379897 5.225747 4.753590 4.804021 4.615121
## [49] 4.804021 5.303305 4.983607 4.836282 4.934474 4.804021 4.615121 4.983607
## [57] 5.043425 4.634729 5.170484 4.762174 4.653960 4.727388 5.262690 5.170484
## [65] 5.023881 4.605170 4.624973 5.484797 4.948760 5.267858 5.513429 4.812184
## [73] 4.691348 4.605170 4.948760 4.605170 4.615121 4.804021 5.036953 5.030438
## [81] 4.762174 4.691348 4.634729 5.093750 5.075174 4.927254 5.164786 4.605170
## [89] 4.653960 4.962845 4.605170 4.663439 5.298317 5.313206 5.365976 4.709530
## [97] 4.983607 4.787492 4.709530 4.736198
```

```
log(bhargav1$Innings)
```

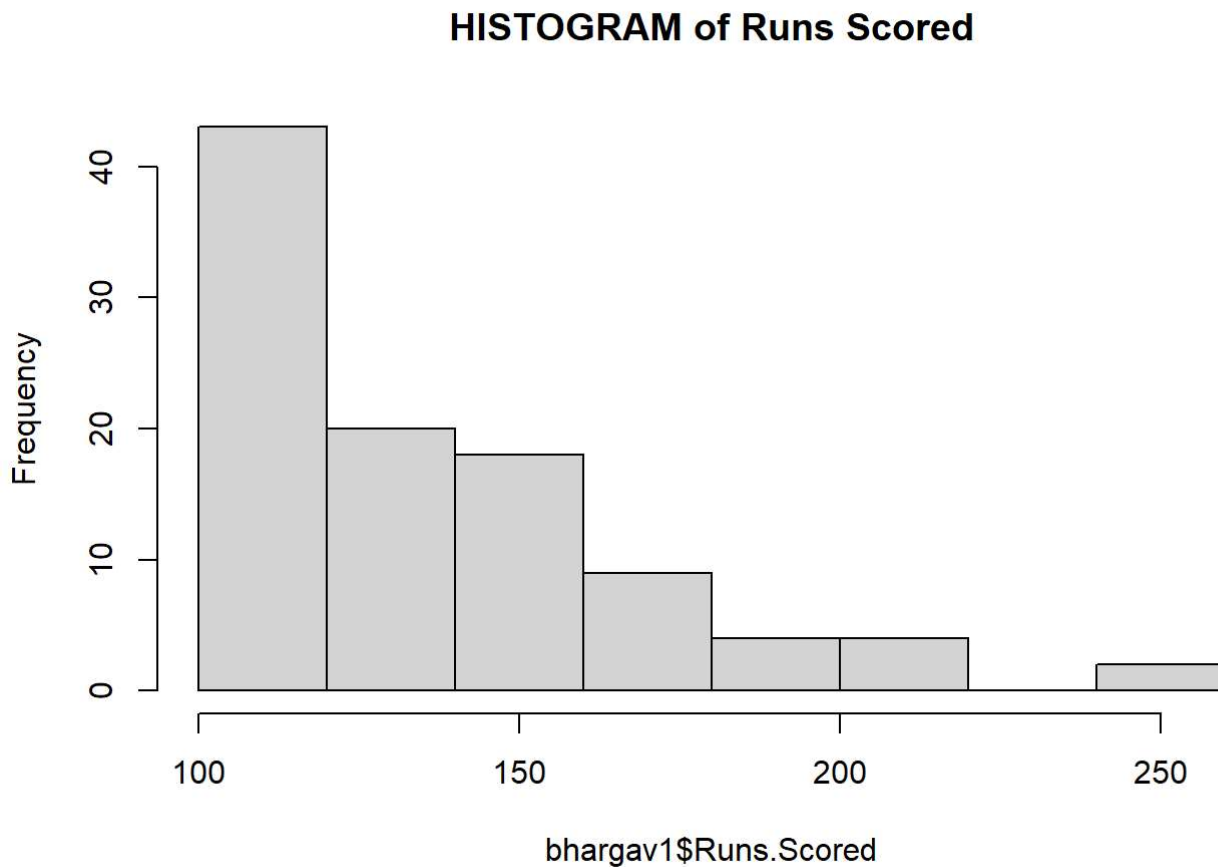
```
## [1] 1.3862944 0.6931472 0.6931472 0.6931472 0.0000000 1.0986123 0.0000000
## [8] 0.0000000 0.6931472 0.0000000 0.0000000 0.6931472 0.6931472 0.0000000
## [15] 0.0000000 0.0000000 1.0986123 0.0000000 0.0000000 0.0000000 0.6931472
## [22] 0.0000000 0.6931472 0.0000000 0.6931472 0.0000000 1.0986123 0.0000000
## [29] 0.6931472 0.6931472 0.6931472 0.6931472 0.0000000 0.6931472 0.0000000
## [36] 0.6931472 0.6931472 1.0986123 1.3862944 1.0986123 0.0000000 0.0000000
## [43] 1.0986123 0.0000000 0.0000000 0.6931472 0.6931472 0.0000000 0.6931472
## [50] 0.0000000 0.0000000 0.6931472 0.0000000 0.6931472 0.0000000 0.0000000
## [57] 0.0000000 0.6931472 0.6931472 0.0000000 0.0000000 0.0000000 0.0000000
## [64] 1.0986123 0.0000000 0.0000000 0.0000000 0.0000000 0.6931472 0.0000000
## [71] 0.6931472 0.0000000 0.0000000 0.0000000 0.0000000 0.0000000 0.0000000
## [78] 0.0000000 0.6931472 0.0000000 0.6931472 0.0000000 1.3862944 0.0000000
## [85] 0.6931472 0.0000000 0.6931472 1.0986123 0.0000000 0.6931472 1.0986123
## [92] 0.6931472 0.0000000 0.6931472 0.6931472 1.0986123 0.6931472 0.0000000
## [99] 0.0000000 0.0000000
```

```
bhargav2<-bhargav1$Strike.Rate- mean(bhargav1$Strike.Rate)/sd(bhargav1$Strike.Rate)
bhargav2
```

```
## [1] 59.70101 66.22101 67.54101 37.85101 52.48101 61.33101 60.13101
## [8] 81.35101 81.29101 75.09101 52.33101 101.41101 88.76101 96.74101
## [15] 86.83101 81.02101 65.66101 45.90101 76.45101 87.21101 63.27101
## [22] 103.95101 82.14101 54.63101 48.99101 57.39101 77.89101 82.24101
## [29] 109.09101 105.90101 99.03101 93.82101 94.44101 94.43101 106.89101
## [36] 102.09101 131.52101 71.57101 46.55101 49.50101 135.35101 81.84101
## [43] 47.54101 59.82101 120.74101 57.47101 85.14101 68.88101 49.10101
## [50] 68.27101 92.16101 51.52101 107.94101 89.86101 75.03101 107.34101
## [57] 80.97101 49.02101 52.43101 41.74101 93.96101 107.52101 55.22101
## [64] 52.43101 97.40101 80.77101 108.82101 52.01101 101.18101 52.48101
## [71] 62.17101 91.35101 52.35101 85.23101 92.01101 128.31101 56.50101
## [78] 50.72101 60.11101 71.37101 94.24101 54.71101 49.29101 119.29101
## [85] 58.27101 100.49101 120.85101 44.13101 59.99101 75.31101 52.60101
## [92] 48.19101 132.79101 55.24101 55.69101 42.79101 43.23101 101.08101
## [99] 106.64101 74.29101
```

#Step5: Plotting the variables

```
hist(bhargav1$Runs.Scored,main = "HISTOGRAM of Runs Scored")
```



```
plot(bhargav1$Century.Number,bhargav1$Runs.Scored,main = "Plot")
```

**Plot**

