21BDS0340

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Exploratory Data Analysis Lab

Experiment – III

```
Code:
```

```
library(dplyr)
library(tidyr)
library(magrittr)
setwd("/Users/abhi/College Work/Year 4 Semester 1 (Sem 7)/Exploratory Data Analysis
Lab/Assignment 2")
data = read.csv("DS2_Match.csv")
```

Output:

- > setwd("/Users/abhi/College Work/Year 4 Semester 1 (Sem 7)/Exploratory Data
 Analysis Lab/Assignment 2")
- > data = read.csv("DS2_Match.csv")
- > library(dplyr)
- > library(tidyr)
- > library(magrittr)
- > setwd("/Users/abhi/College Work/Year 4 Semester 1 (Sem 7)/Exploratory Data
 Analysis Lab/Assignment 2")
- > data = read.csv("DS2_Match.csv")

Code:

win_type_arranged = data %>% arrange(Win_Type)
View(win_type_arranged)

Tilter												2
	Toss_Decision	IS_Superover	S_Result	Is_DuckWorthLewis	© Win_Type	© Won_By	Match_Winner_Id	Man_Of_The_Match_Id	First_Umpire_Id	Second_Umpire_Id	City_Name	Host_Cou
	6 bat		0	0	0 No Result	NULL	N/A	NA	485	518	Delhi	India
	5 field		0	0	0 No Result	NULL	NA.	NA	494	506	Bangalore	India
	2 field		0	0	0 No Result	NULL	NA.	NA	482	520	Bangalore	India
	1 field		1	1	0 Tie	NULL	5	31	471	481	Cape Town	South Afri
	3 field		1	1	0 Tie	NULL	4	233	486	476	Chennai	India
	2 bat		1	1	0 Tie	NULL	11	340	495	489	Hyderabad	India
	2 field		1	1	0 Tie	NULL	2	8	481	496	Bangalore	India
	5 bat		1	1	0 Tie	NULL	5	310	472	495	Abu Dhabi	U.A.E
	4 field		1	1	0 Tie	NULL	4	100	481	489	Ahmedabad	India
	2 field		0	1	0 by runs	140	1	2	470	477	Bangalore	India
	3 bat		0	1	0 by runs	33	3	19	471	487	Chandigarh	India
	7 field		0	1	0 by runs	6	3	18	476	512	Chennai	India
	7 field		0	1	0 by runs	66	4	26	472	492	Chandigarh	India
	3 bat		0	1	0 by runs	13	3	20	478	513	Bangalore	India
	2 field		0	1	0 by runs	10	6	118	472	514	Delhi	India
	5 bat		0	1	0 by runs	45	5	101	477	512	Jaipur	India
	4 bat		0	1	0 by runs	9	4	29	476	514	Chandigarh	India
	6 field		0	1	0 by runs	29	7	49	475	477	Mumbai	India
	1 bat		0	1	0 by runs	5	1	1	470	475	Kolkata	India
	4 field		0	1	0 by runs	18	3	151	479	480	Chennai	India
	1 bat		0	1	0 by runs	23	1	1	475	492	Hyderabad	India
	1 bat		0	1	0 by runs	23	1	144	470	475	Kolkata	India
	5 field		0	1	0 by runs	41	4	100	473	486	Chandigarh	India
	8 field		0	1	0 by runs	12	6	136	480	512	Delhi	India
	6 bat		0	1	1 by runs	6	4	64	479	477	Delhi	India
	2 field		0	1	0 by runs	65	5	74	474	487	Jaipur	India
	8 field		0	1	0 by runs	25	7	71	478	476	Hyderabad	India
	1 bat		0	1	1 by runs	3	3	122	470	486	Kolkata	India
	7 field		0	1	0 by runs	1	4	100	474	512	Mumbai	India
	2 bat				0 by runs	14	2		476		Chennai	India
	5 bat				0 by runs	10	5		476		Chennai	India
	8 field			1	0 by runs	3	2		478		Bangalore	India
	6 field				0 by runs	105	5		474		Mumbai	India
	3 field		0	1	0 by runs	19	7	133	478		Cape Town	South Afri
	2 bat		0	1	0 by runs	75	2	6	478	513	Cape Town	South Afri
	3 bat		0	1	0 by runs	92	3	121	480	490	Port Elizabeth	South Afri

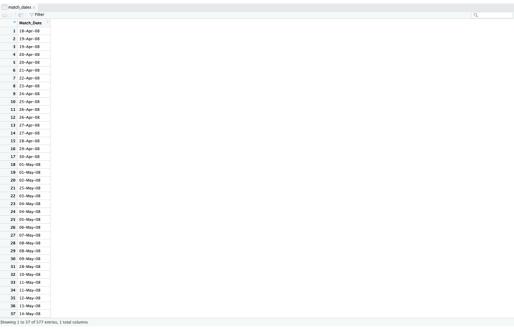
city_name_arranged = data %>% arrange(City_Name)
View(city_name_arranged)

Output:

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Toss_Winner_Id	Toss_Decision	IS_Superover	IS_Result	Is_DuckWorthLewis	Win_Type	Won_By	Match_Winner_Id	Man_Of_The_Match_Id	First_Umpire_Id **	Second_Umpire_Id **	City_Name	Host_Coun
	1 bat	-			by runs	41	1	9			Abu Dhabi	U.A.E
	2 field	-			by wickets	8	2		472		Abu Dhabi	U.A.E
	3 bat	-			by wickets	6	4		501		Abu Dhabi	U.A.E
	5 field	-			by wickets	4	5				Abu Dhabi	U.A.E
	2 field	-			by wickets	7	2				Abu Dhabi	U.A.E
	1 bat				by wickets	4	6				Abu Dhabi	U.A.E
	4 field				by wickets	7	4		474	481	Abu Dhabi	U.A.E
	3 bat				by runs	93	3				Abu Dhabi	U.A.E
1	1 field)	1	by runs	72	4	305	481	489	Abu Dhabi	U.A.E
	5 field				by runs	7	3		482	501	Abu Dhabi	U.A.E
	2 field				by runs	2	1			496	Abu Dhabi	U.A.E
1	1 bat)	1	by runs	4	11		481	489	Abu Dhabi	U.A.E
	7 bat)	1	by wickets	7	3	364	474	481	Abu Dhabi	U.A.E
	5 field)	1	by wickets	6	5	370	482	499	Abu Dhabi	U.A.E
	1 field)	1	by runs	23	4	367	482	501	Abu Dhabi	U.A.E
	7 bat	-)	1 (by wickets	6	6	185	472	496	Abu Dhabi	U.A.E
1	1 bat)	1	by wickets	5	3	147	495	496	Abu Dhabi	U.A.E
	4 field)	1	by wickets	5	4	367	474	489	Abu Dhabi	U.A.E
	5 bat		1	1	Tie	NULL	5	310	472	495	Abu Dhabi	U.A.E
	7 field)	1	by runs	15	11	299	482	481	Abu Dhabi	U.A.E
	6 field)	1	by wickets	6	6	41	480	477	Ahmedabad	India
	5 bat)	1	by runs	34	5	211	477	513	Ahmedabad	India
	8 bat)	1	by wickets	8	s	31	482	490	Ahmedabad	India
	5 bat)	1	by runs	17	5	183	485	490	Ahmedabad	India
	1 field)	1	by runs	10	5	370	500	498	Ahmedabad	India
	5 field)	1	by runs	32	11	299	495	500	Ahmedabad	India
	6 field)	1	by runs	62	5	85	489	518	Ahmedabad	India
	7 bat)	1	by runs	25	7	19	489	518	Ahmedabad	India
	7 bat)	1 (by wickets	7	5	306	495	504	Ahmedabad	India
	3 bat)	1	by wickets	8	5	85	495	481	Ahmedabad	India
	4 field		1	1 (Tie	NULL	4	100	481	489	Ahmedabad	India
	2 field	-)	1 (by wickets	9	2	378	481	489	Ahmedabad	India
	2 field	-)	1 (by runs	140	1	2	470	477	Bangalore	India
	5 field)	1	by wickets	7	5	32	471	475	Bangalore	India
	3 bat			1	by runs	13	3	20	478	513	Bangalore	India
	4 field			1	by wickets	6	4	77	473	478	Bangalore	India
	7 field			1 (by wickets	9	7	149	474		Bangalore	India

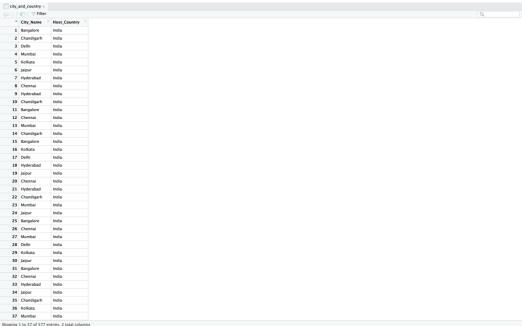
Code:

match_dates = data %>% select(Match_Date)
View(match_dates)



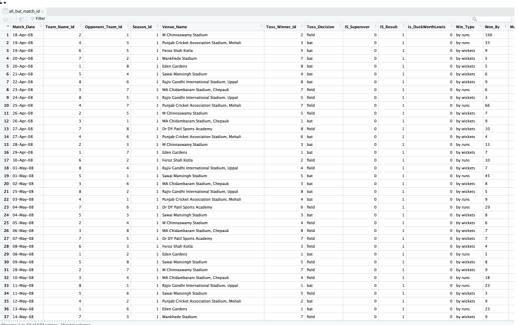
city_and_country = data %>% select(City_Name, Host_Country)
View(city_and_country)

Output:



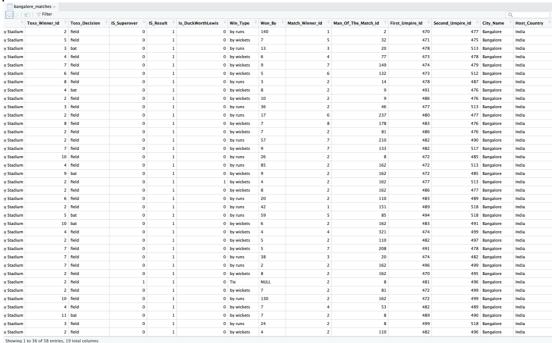
Code:

all_but_match_id = data %>% select(-Match_Id)
View(all_but_match_id)



bangalore_matches = data %>% filter(City_Name == "Bangalore")
View(bangalore_matches)

Output:



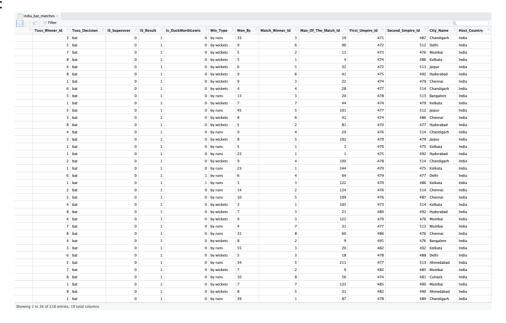
Code:

no_result_matches = data %>% filter(Win_Type == "No Result")
View(no_result_matches)



```
india_bat_matches = data %>% filter(Host_Country == "India", Toss_Decision ==
"bat")
View(india_bat_matches)
```

Output:



Code:

```
custom_data = data.frame(
  Name = c("Abhinav", "Tanush", "Sumathi"),
  English = c(45, 67, 87),
  Math = c(53, 65, 23)
)

gathered = custom_data %>% gather("Course", "Marks", 2:3)
View(gathered)
```

Output:



Showing 1 to 6 of 6 entries, 3 total column

```
spread = gathered %>% spread("Course", "Marks")
View(spread)
```

Output:



howing 1 to 3 of 3 entries, 3 total columns

Code:

```
grouped = data %>% group_by(Host_Country) %>%
  summarise(count = n())
View(grouped)
```

Output:



Showing 1 to 3 of 3 entries, 2 total column

mutated = data %>% mutate(year=format(as.Date(data\$Match_Date, format="%d-%b-%y"),
"%Y"))

View(mutated)

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Vinner_Id	Toss_Decision	IS_Superover	IS_Result	Is_DuckWorthLewis	Win_Type	Won_By	Match_Winner_Id	Man_Of_The_Match_Id	First_Umpire_Id	Second_Umpire_Id	City_Name	Host_Country	year
	2 field	0	1		0 by runs	140	1	1 2	470	477	Bangalore	India	2008
	3 bat	0	1		0 by runs	33	1	19	471	487	Chandigarh	India	2008
	5 bat	0	1		0 by wickets	9		90	472	512	Delhi	India	2008
	7 bat	0	1		0 by wickets	5	1	11	473	476	Mumbai	India	2008
	8 bat	0	1		0 by wickets	5	1	1 4	474	486	Kolkata	India	2008
	4 bat	0	1		0 by wickets	6		32	472	513	Jaipur	India	2008
	8 bat	0	1		0 by wickets	9		41	475	492	Hyderabad	India	2008
	7 field	0	1		0 by runs	6	3	18	476	512	Chennai	India	2008
	S field	0	1		0 by wickets	3		31	470	471	Hyderabad	India	2008
	7 field	0	1		0 by runs	66	4	26	472	492	Chandigarh	India	2008
	5 field	0	1		0 by wickets	7		32	471	475	Bangalore	India	2008
	1 bat	0	1		0 by wickets	9	3	22	474	479	Chennai	India	2008
	8 field	0	1		0 by wickets	10		53	470	487	Mumbai	India	200
	6 bat	0	1		0 by wickets	4	4	28	477	514	Chandigarh	India	200
	3 bat	0	1		0 by runs	13	3	20	478	513	Bangalore	India	200
	1 bat	0	1		0 by wickets	7	1	44	474	479	Kolkata	India	200
	2 field	0	1		0 by runs	10		118	472	514	Delhi	India	200
	4 field	0	1		0 by wickets	7	4	100	478	513	Hyderabad	India	200
	5 bat	0	1		0 by runs	45		101	477	512	Jaipur	India	200
	3 bat	0	1		0 by wickets	8		41	474	486	Chennai	India	200
	8 bat	0	1		0 by wickets	5	1	81	470	477	Hyderabad	India	200
	4 bat	0	1		0 by runs	9	4	29	476	514	Chandigarh	India	200
-	6 field	0	1		0 by runs	29	1	49	475	477	Mumbai	India	200
	3 bat	0	1		0 by wickets	8		102	470	479	Jaipur	India	200
	4 field	0	1		0 by wickets	6	4	77	473	478	Bangalore	India	200
	8 field	0	1		0 by wickets	7		53	471	513	Chennai	India	200
	7 field	0	1		0 by wickets	7	1	73	476	477	Mumbai	India	200
	3 field	0	1		0 by wickets	4	1	20	472	513	Delhi	India	200
	1 bat	0	1		0 by runs	5	1	1 1	470	475	Kolkata	India	200
	5 field	0	1		0 by wickets	8		31	471	492	Jaipur	India	200
	7 field	0	1		0 by wickets	9	1	149	474	479	Bangalore	India	200
	4 field	0	1		0 by runs	18		151	479	480	Chennai	India	200
	1 bat	0	1		0 by runs	23	1	1	475	492	Hyderabad	India	200
	5 field	0	1		0 by wickets	3		32	473	477	Jaipur	India	200
	2 bat	0	1		0 by wickets	9		100	478	514	Chandigarh	India	200
	1 bat	0	1		0 by runs	23	1	144	470	475	Kolkata	India	200