

Aim: Performing two-way ANOVA using aov() (R).

```

1 print("name: S126 Hariprasad")
2
3 # 1. Select the 'fastest fifties - 2022' CSV file manually
4 data <- read.csv(file.choose())
5
6 # 2. Perform Two-way ANOVA with interaction
7 # This checks if runs are affected by the Team (Against) and the stadium (Venue)
8 anova_result <- aov(Runs ~ Against * Venue, data = data)
9
10 # 3. view the ANOVA summary table (including p-values)
11 summary(anova_result)
12
13 # 4. Preview the first few rows of your data
14 head(data)
15

```

Console Output:

```

> print("name: S126 Hariprasad")
[1] "name: S126 Hariprasad"
> # 1. Select the 'fastest fifties - 2022' CSV file manually
> data <- read.csv(file.choose())
> # 2. Perform Two-way ANOVA with interaction
> # This checks if runs are affected by the Team (Against) and the stadium (Venue)
> anova_result <- aov(Runs ~ Against * Venue, data = data)
> # 3. view the ANOVA summary table (including p-values)
> summary(anova_result)
              Df Sum Sq Mean Sq F value Pr(>F)
Against       9   1094   121.6   0.402  0.930
Venue         5   2525   504.9   1.669  0.153
Against:Venue 30   9395   313.8   1.037  0.412
Residuals    73  22086   302.5
> # 4. Preview the first few rows of your data
> head(data)
   pos  Player Runs BP  SR  x4s  x6s Against
1    1    Pat Cummins  58 14 373.33  4    6    miz Maharashtra Cricket Association Stadium 06 April 2022
2    2     Koenen Ali  69 19 163.15 13    3    RR      Brabourne - CCI 20 May 2022
3    3  Liam Livingstone 64 21 237.03  7    4    GT      Brabourne - CCI 08 April 2022
4    4  Rahul Tripathi  71 21 191.89  4    6    KKR      Brabourne - CCI 15 April 2022
5    5  Jonny Bairstow  66 21 227.38  4    7    RCB      Brabourne - CCI 13 May 2022
6    6    Evin Lewis  55 23 230.13  6    3    CSK      Brabourne - CCI 31 March 2022

```

Environment:

- anovamodel: List of 13
- anova_result: List of 13
- cricket_data: 10 obs. of 3 variables
- data: 118 obs. of 10 variables

Global Environment:

- \$ pos: int 1 2 3 4 5 6 7 8 9 10 ...
- \$ Player: chr "Pat Cummins" "Koenen Ali" "Liam Livingstone" "Rahul Tripathi" ...
- \$ Runs: int 58 69 64 71 66 55 106 54 58 50 ...
- \$ BP: int 14 19 21 21 23 23 23 25 25 ...
- \$ SR: num 373 163 237 192 228 ...
- \$ x4s: int 4 13 7 4 4 6 10 8 9 8 ...
- \$ x6s: int 6 3 4 6 7 3 6 3 2 1 ...
- \$ Against: chr "miz" "RR" "GT" "KKR" ...
- \$ Venue: chr "Maharashtra Cricket Association Stadium" "Brabourne - CCI" "Brabourne - CCI" "Br..."
- \$ Match.Date: chr "06 April 2022" "20 May 2022" "08 April 2022" "15 April 2022" ...
- \$ node1: List of 13