

# 5240 Workshop 04

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## Loading Data of Birthday

```
birth_month_df <- read.csv("ws04-exercise-birth_months.csv")  
  
birth_month <- birth_month_df$birth_month
```

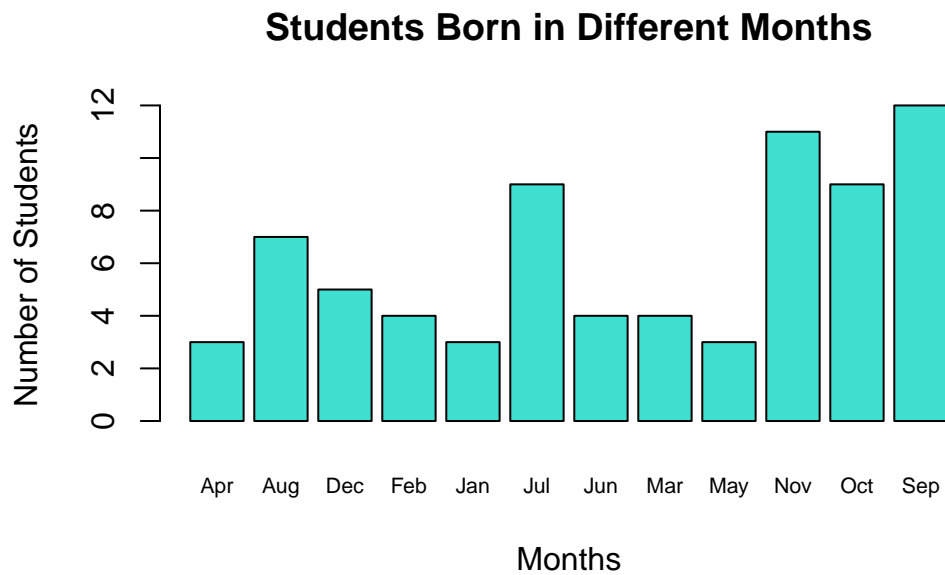
## Frequency Table

```
frequency_of_bday <- table(birth_month)  
frequency_of_bday
```

```
birth_month  
Apr Aug Dec Feb Jan Jul Jun Mar May Nov Oct Sep  
   3   7   5   4   3   9   4   4   3  11   9  12
```

## Bar Plot

```
barplot(frequency_of_bday,  
        main = "Students Born in Different Months",  
        xlab = "Months",  
        ylab = "Number of Students",  
        col = "turquoise",  
        cex.names = 0.7)
```



## Probability Calculation

```
total_students <- sum(frequency_of_bday)
total_students
```

```
[1] 74
```

```
winter_months <-c("Dec", "Jan", "Feb", "Mar")
total_students_of_winter <- sum(frequency_of_bday[winter_months])
total_students_of_winter
```

```
[1] 16
```

```
student_born_in_winter <- total_students_of_winter / total_students
student_born_in_winter
```

```
[1] 0.2162162
```

Probability that a student might be born in winter is 0.21