

SHETH L.U.J. AND SIR M.V. COLLEGE

Aim:- Creating Cross Tabulation And Two - Way Tables Using Tables () in R

```
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> library(dplyr)
> df <- read.csv("job_market.csv", header = TRUE, stringsAsFactors = TRUE)
> print("Column names in dataset:")
[1] "column names in dataset:"
> print(colnames(df))
[1] "job_title" "company" "location" "job_type"
[5] "category" "salary_min" "salary_max" "experience_required"
[9] "publication_date" "skills"
> df <- df %>%
+ filter(
+   !is.na(job_title),
+   !is.na(salary_min),
+   !is.na(salary_max)
+ )
> df$job_title <- as.factor(df$job_title)
> df$company <- as.factor(df$company)
> df$location <- as.factor(df$location)
> df$job_type <- as.factor(df$job_type)
> df$category <- as.factor(df$category)
> df$salary_max <- as.numeric(df$salary_max)
> df$experience_required <- as.numeric(df$experience_required)
> df$Salary_Group <- ifelse(
+   df$salary_max < 30000, "Low Salary",
+   ifelse(df$salary_max <= 70000, "Medium Salary", "High Salary")
+ )
> df$Salary_Group <- as.factor(df$Salary_Group)
> print("Salary Group Distribution:")
[1] "Salary Group Distribution:"
> print(table(df$Salary_Group))
High Salary Medium Salary
247 3
> print("Cross-Tabulation: Job Type vs Salary Group")
[1] "Cross-Tabulation: Job Type vs Salary Group"
> jobtype_salary_tab <- table(df$job_type, df$Salary_Group)
> print("Rows = Job Type | Columns = Salary Group")
[1] "Rows = Job Type | Columns = Salary Group"
> print(jobtype_salary_tab)
```

```
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> print("Cross-Tabulation: Job Type vs Salary Group")
[1] "Cross-Tabulation: Job Type vs Salary Group"
> jobtype_salary_tab <- table(df$job_type, df$Salary_Group)
> print("Rows = Job Type | Columns = Salary Group")
[1] "Rows = Job Type | Columns = Salary Group"
> print(jobtype_salary_tab)
High Salary Medium Salary
berufseinstieg 1 0
berufserfahren 6 0
Contract 49 1
Full-time 50 0
Full time 3 0
Internship 1 0
manager 1 0
Part-time 49 0
Professional / experienced 2 0
Remote 55 0
working student 3 0
> print("Cross-Tabulation: Category vs Salary Group")
[1] "Cross-Tabulation: Category vs Salary Group"
> category_salary_tab <- table(df$category, df$Salary_Group)
> print("Rows = Category | Columns = Salary Group")
[1] "Rows = Category | Columns = Salary Group"
> print(category_salary_tab)
High Salary Medium Salary
Finance 20 0
Helpdesk 1 0
HR 1 0
Marketing and Communication 5 1
Media Planning 1 0
Process Engineering 1 0
Recruitment and Selection 1 0
Remote 9 2
SAP/ERP Consulting 1 0
Social Media Manager 2 0
Software Development 4 0
Technical Support 20 0
```

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SUBJECT:- Data Analysis With SAS / SPSS / R

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The screenshot displays the RStudio environment with the following components:

- Console:** Shows R code execution for creating a contingency table and printing it.
- Environment:** Lists loaded objects including 'special_buildings', 'total_sleep_df', 'us_jobs', and 'category_salary_tab'.
- Files:** A file explorer showing various documents and datasets.

Console Output:

```
[1] "Rows = Job Type | Columns = Salary Group"
> print(jobtype_salary_tab)

      High Salary Medium Salary
berufseinstieg      27         0
berufserfahrung      6         0
Contract           49         1
Full-time          50         0
Full time           3         0
Internship          1         0
manager             1         0
Part-time          49         0
professional / experienced 2         0
Remote             55         0
Working student     3         0

> print("Cross-Tabulation: Category vs Salary Group")
[1] "Cross-Tabulation: Category vs Salary Group"
> category_salary_tab <- table(df$category, df$Salary_Group)
> print("Rows = Category | Columns = Salary Group")
[1] "Rows = Category | Columns = Salary Group"
> print(category_salary_tab)

      High Salary Medium Salary
Finance           20         0
Helpdesk           1         0
HR                 1         0
Marketing and Communication 5         1
Media Planning      1         0
Process Engineering 1         0
Recruitment and Selection 1         0
Remote              9         2
SAP/ERP Consulting  1         0
Social Media Manager 2         0
Software Development 4         0
Technology          200         0
```

Environment:

| Object | Class | Attributes |
|---------------------|------------|---------------------------------------------|
| special_buildings | data.frame | 3007 obs. of 6 variables |
| total_sleep_df | data.frame | 45 obs. of 2 variables |
| us_jobs | data.frame | 10 obs. of 12 variables |
| body_weight_counts | table | int [1:60(1d)] 1 1 2 1 1 1 1 1 1 ... |
| brain_weight_counts | table | int [1:59(1d)] 1 1 1 1 1 2 1 1 1 1 ... |
| category_salary_tab | table | int [1:13, 1:2] 20 1 1 1 5 1 1 9 1 ... |
| gender_age_tab | table | int[0, 0] |
| gender_weight_tab | table | int[0, 0] |
| jobtype_salary_tab | table | int [1:12, 1:2] 27 1 6 49 50 3 1 1 49 2 ... |

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