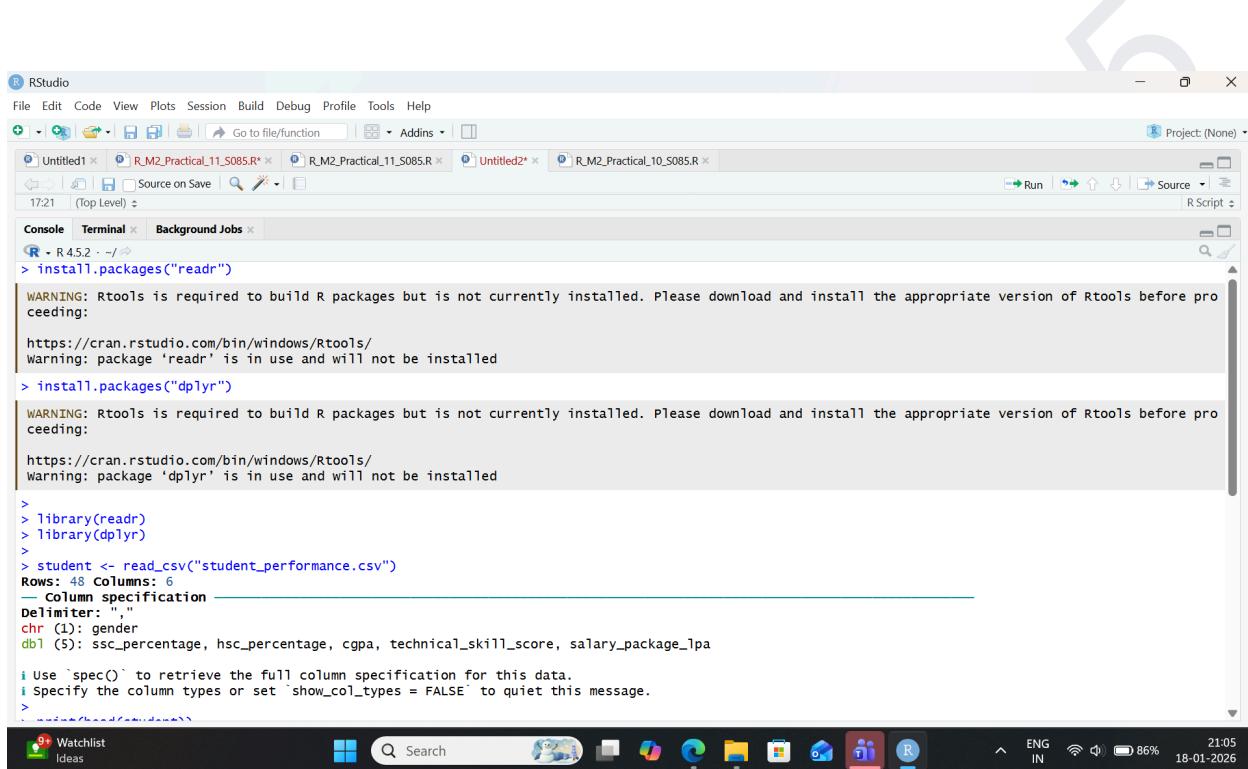


## **Practical No 12 Module II**

**Aim :** Generating correlation matrices using cor().

**Output :**

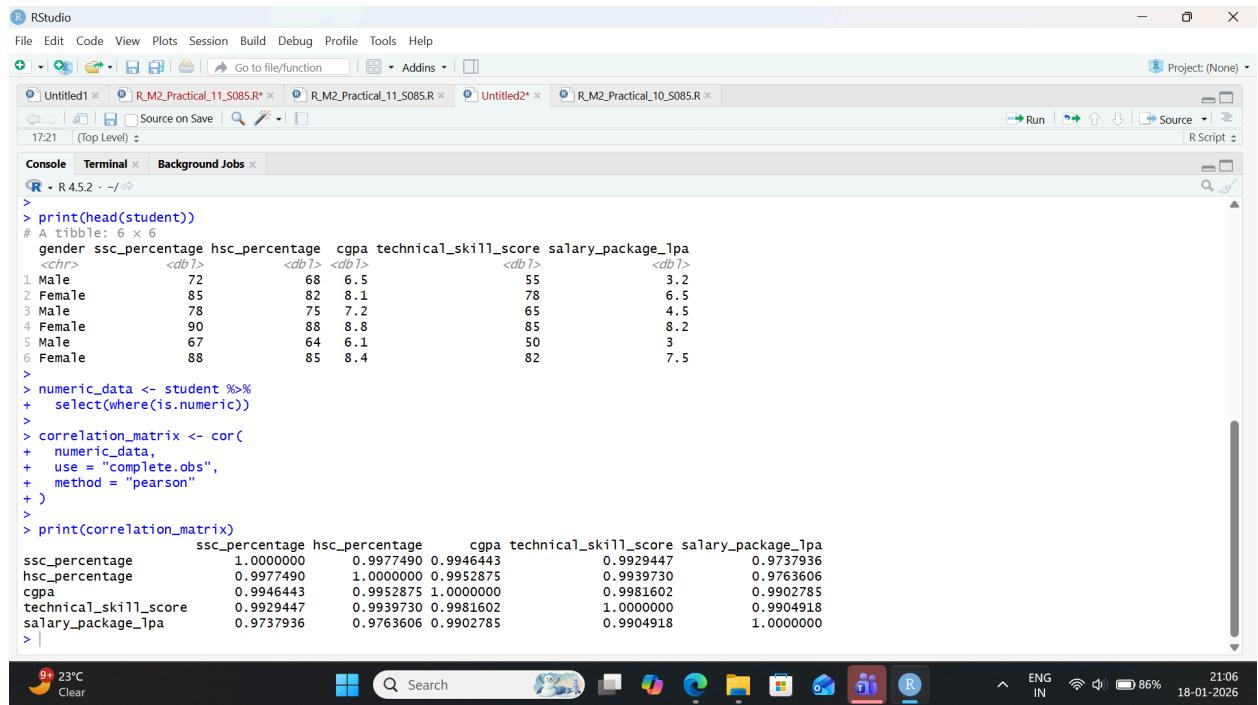


The screenshot shows the RStudio interface with the following details:

- File Bar:** File, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, Help.
- Project Bar:** Project (None).
- Console Tab:** Selected.
- Code in Console:**

```
> install.packages("readr")
WARNING: Rtools is required to build R packages but is not currently installed. Please download and install the appropriate version of Rtools before proceeding:
https://cran.rstudio.com/bin/windows/Rtools/
Warning: package 'readr' is in use and will not be installed
> install.packages("dplyr")
WARNING: Rtools is required to build R packages but is not currently installed. Please download and install the appropriate version of Rtools before proceeding:
https://cran.rstudio.com/bin/windows/Rtools/
Warning: package 'dplyr' is in use and will not be installed
> library(readr)
> library(dplyr)
>
> student <- read_csv("student_performance.csv")
Rows: 48 Columns: 6
--- Column specification ---
Delimiter: ","
chr (1): gender
dbl (5): ssc_percentage, hsc_percentage, cgpa, technical_skill_score, salary_package_lpa
i Use `spec()` to retrieve the full column specification for this data.
i Specify the column types or set `show_col_types = FALSE` to quiet this message.
>
```
- System Taskbar:** Shows icons for File Explorer, Search, Task View, Edge, File History, Task Scheduler, Taskbar Icons, and R. It also displays system status: ENG IN, 86%, 18-01-2026, and 21:05.

**SHETH L.U.J. AND SIR M.V. COLLEGE OF ARTS SCIENCE AND COMMERCE**  
**SUBJECT : R Programming**



```
RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
File Project: (None)
Untitled1 R_M2_Practical_11_S085.R* R_M2_Practical_11_S085.R Untitled2* R_M2_Practical_10_S085.R*
Source on Save Run Source R Script
17:21 (Top Level) ▾
Console Terminal Background Jobs
R 4.5.2 - /-
>
> print(head(student))
# A tibble: 6 × 6
  gender ssc_percentage hsc_percentage cgp technical_skill_score salary_package_lpa
  <chr>      <dbl>          <dbl>      <dbl>           <dbl>            <dbl>
1 Male        72             68       6.5          55            3.2 
2 Female      85             82       8.1          78            6.5 
3 Male        78             75       7.2          65            4.5 
4 Female      90             88       8.8          85            8.2 
5 Male        67             64       6.1          50             3  
6 Female      88             85       8.4          82            7.5 
>
> numeric_data <- student %>%
+   select(where(is.numeric))
>
> correlation_matrix <- cor(
+   numeric_data,
+   use = "complete.obs",
+   method = "pearson"
+ )
>
> print(correlation_matrix)
    ssc_percentage hsc_percentage      cgp technical_skill_score salary_package_lpa
ssc_percentage 1.00000000 0.9977490 0.9946443 0.9929447 0.9737936
hsc_percentage 0.9977490 1.0000000 0.9952875 0.9939730 0.9763606
cgp            0.9946443 0.9952875 1.0000000 0.9981602 0.9902785
technical_skill_score 0.9929447 0.9939730 0.9981602 1.0000000 0.9904918
salary_package_lpa 0.9737936 0.9763606 0.9902785 0.9904918 1.0000000
> |
```

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