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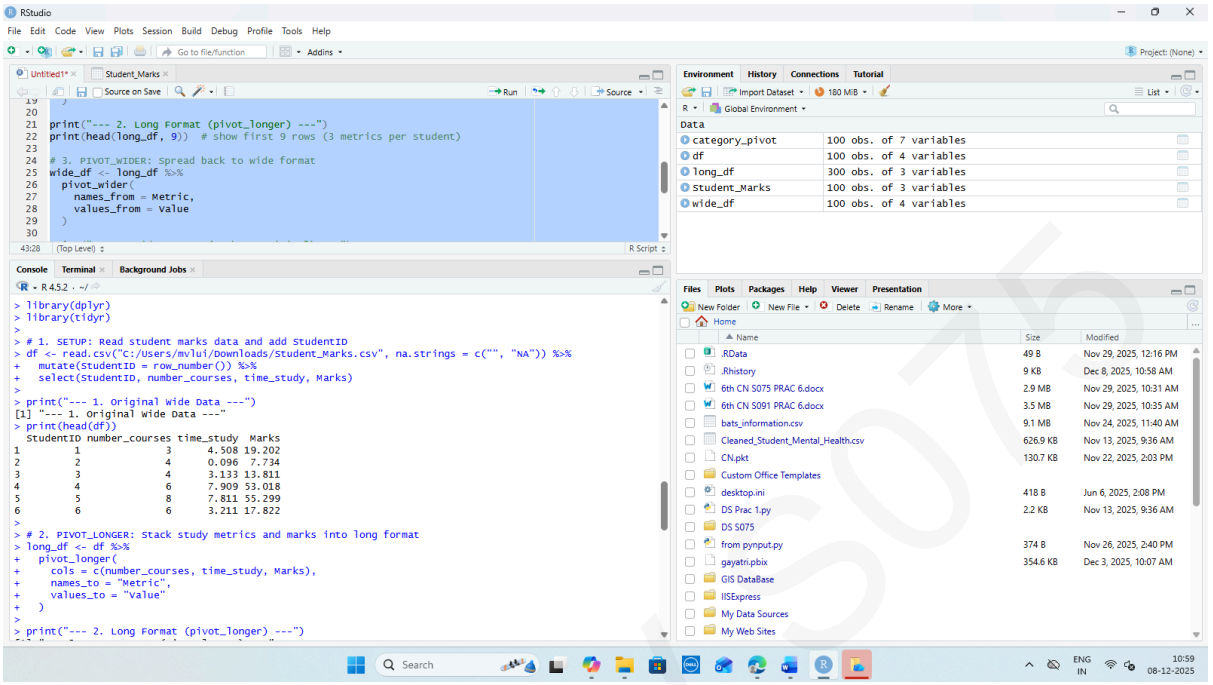
PRAC: 11 12 13 14 15

AIM:- 11 Reshaping data using pivot_longer()/pivot_wider() (R).



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S075

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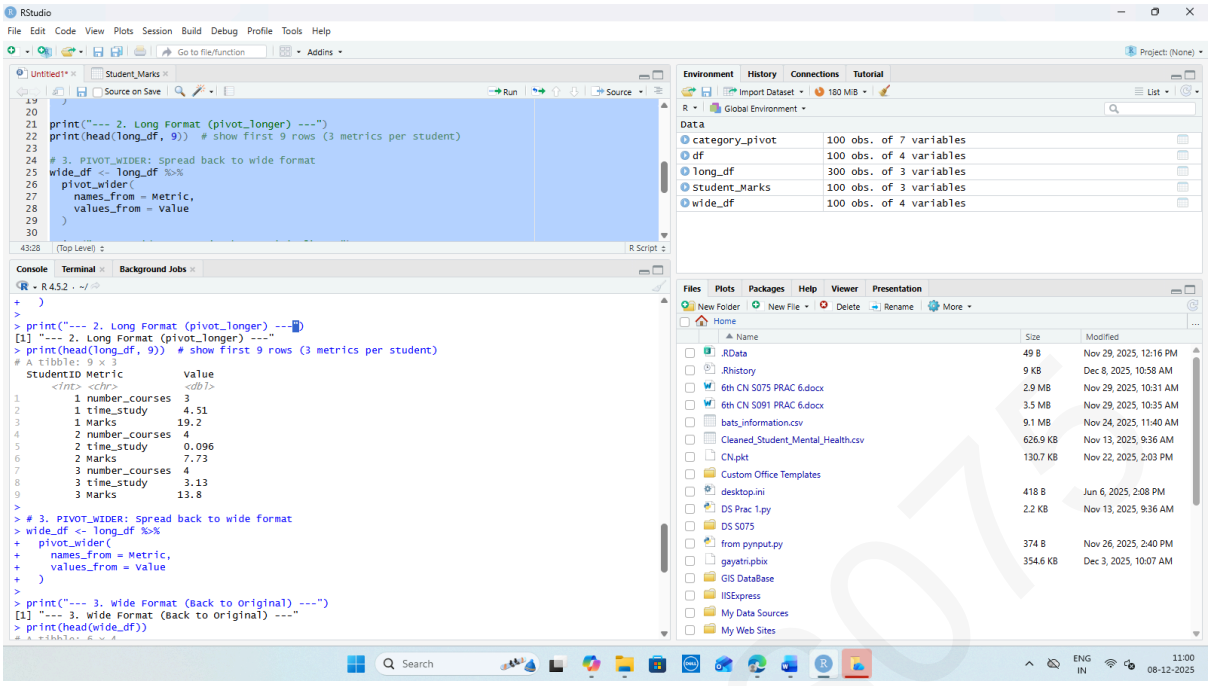
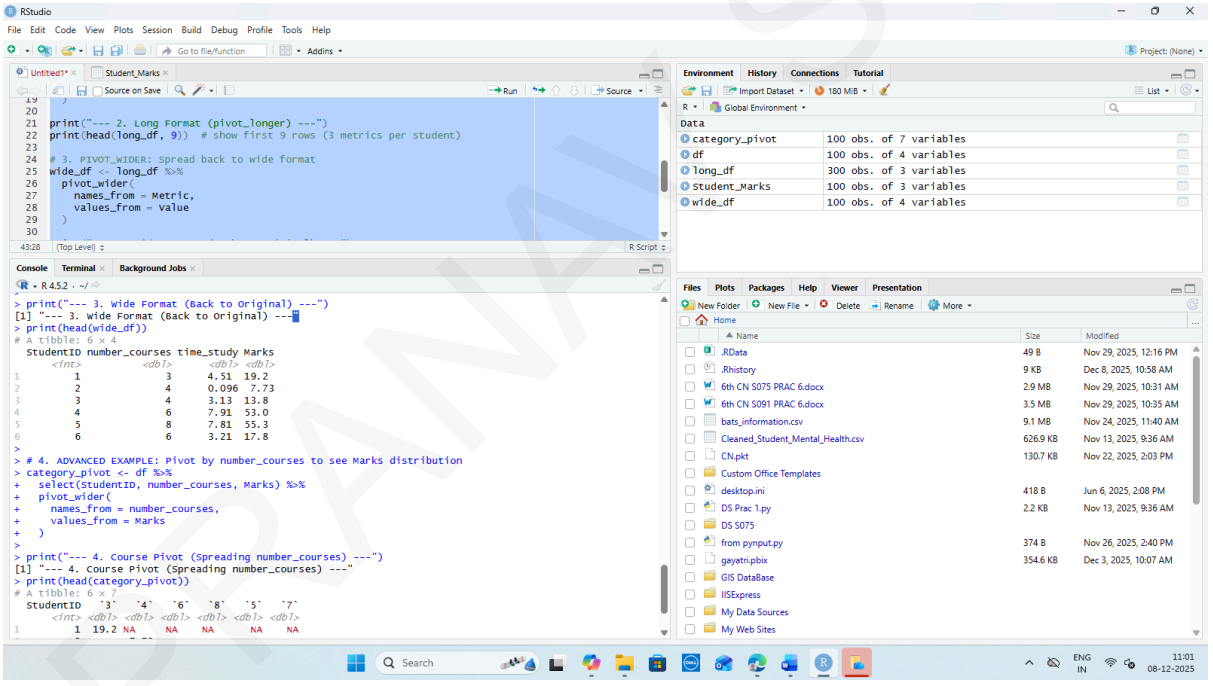
PRAC: 11 12 13 14 15





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S075

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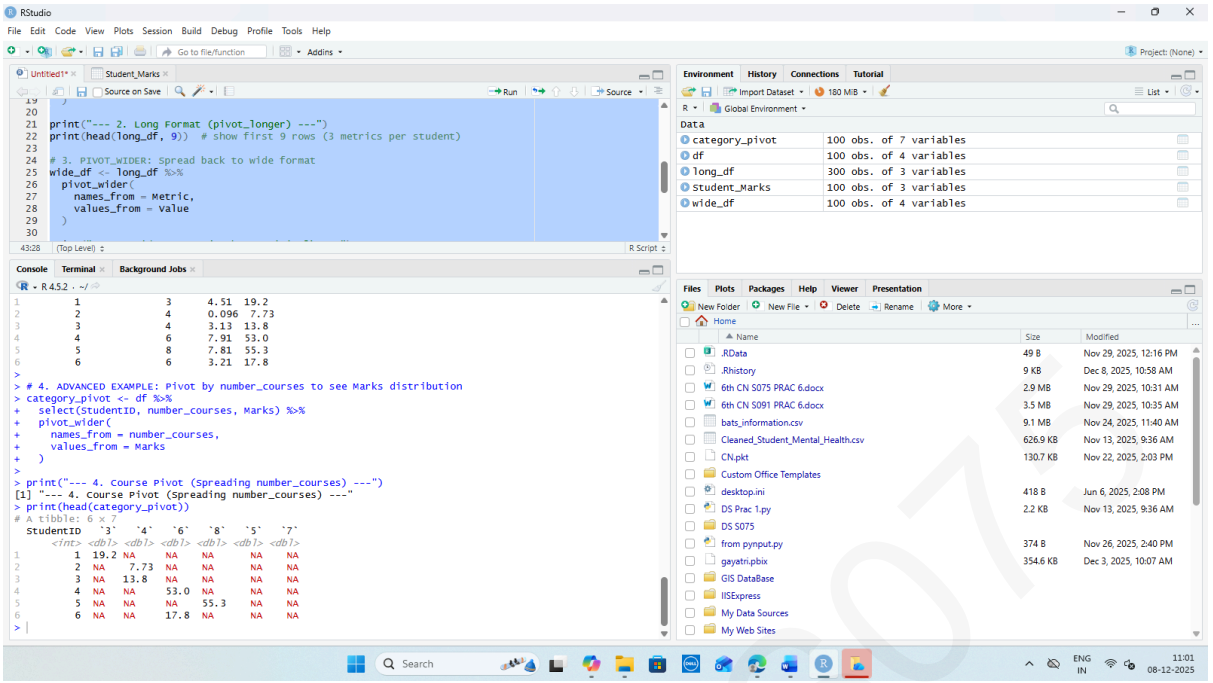
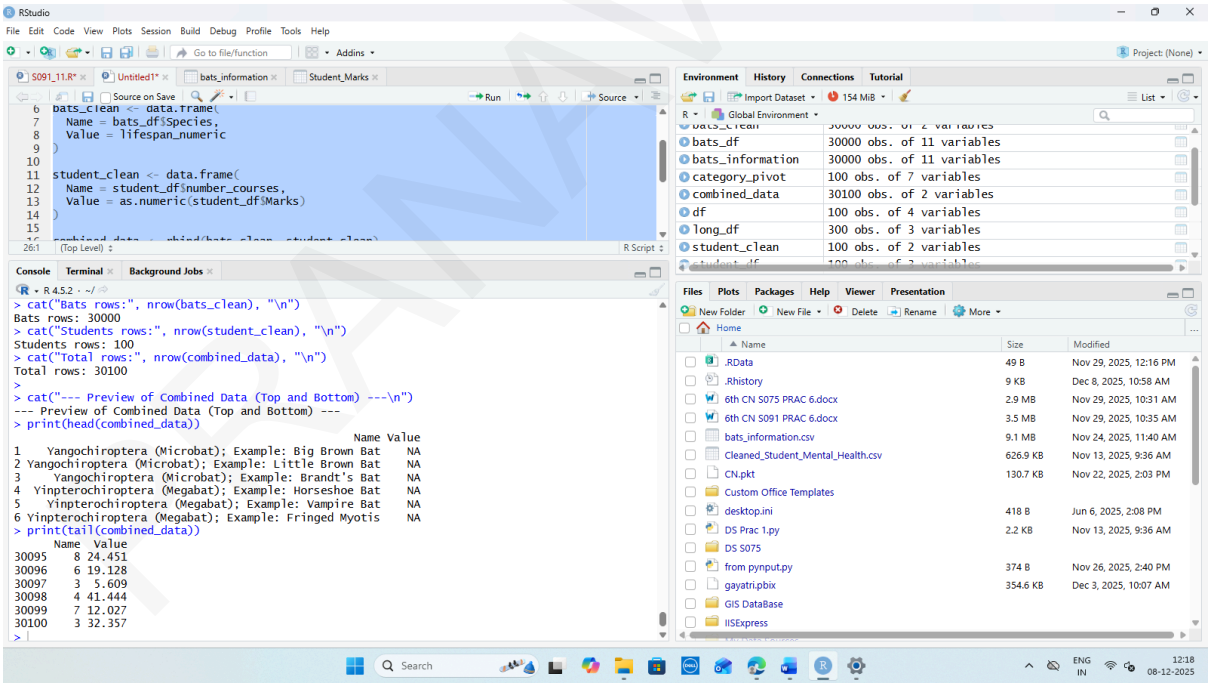


12 Combining datasets vertically (concatenation) using rbind() (R).



AIM:- 13 Identifying and handling duplicates using distinct() (R).

OUTPUT:-

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S075

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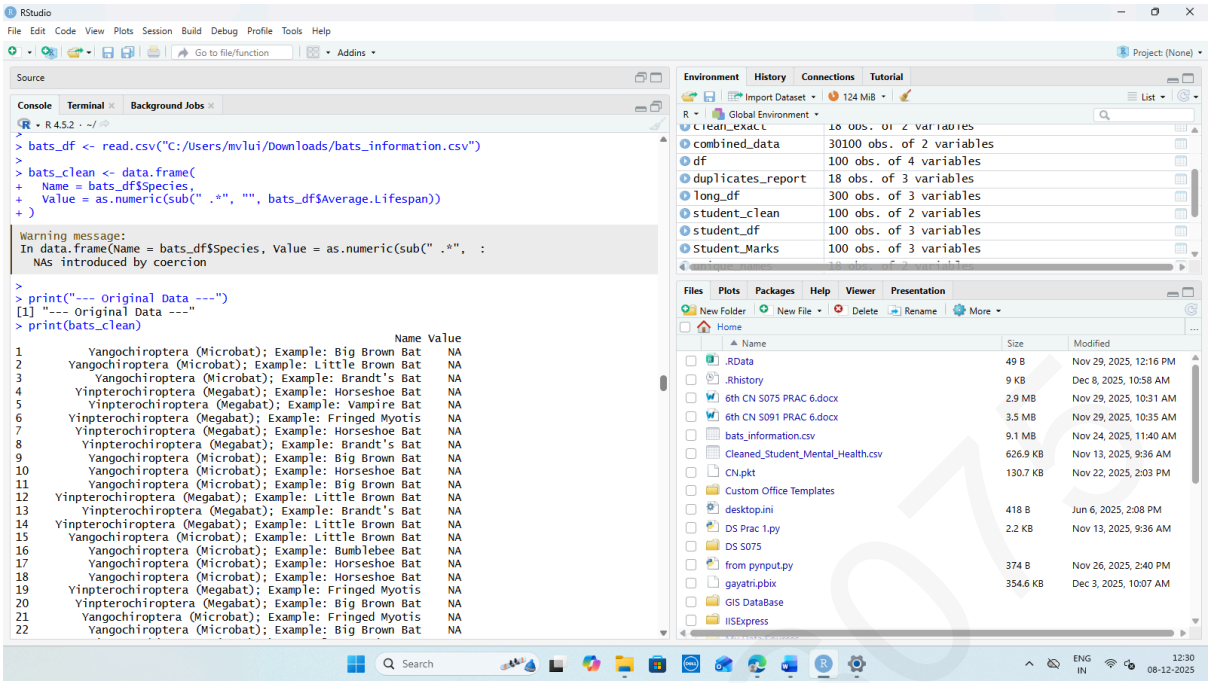
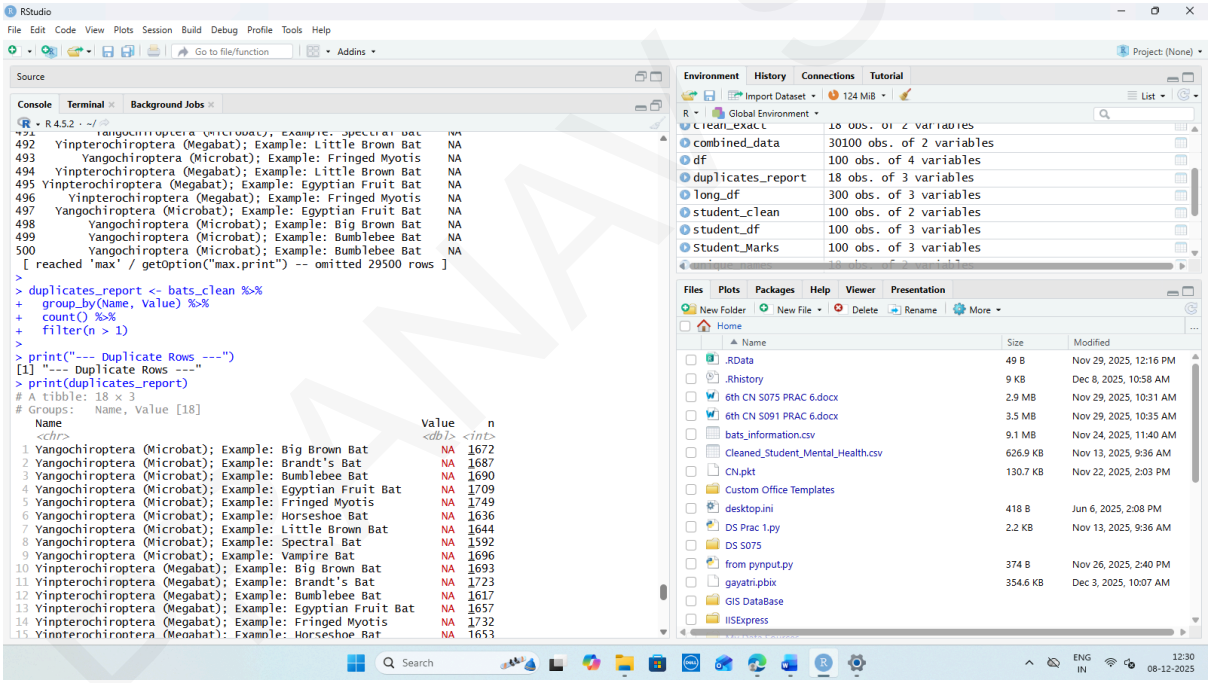


```
> bats_df <- read.csv("C:/Users/mvlui/Downloads/bats_information.csv")
>
> bats_clean <- data.frame(
+   Name = bats_df$Species,
+   Value = as.numeric(sub(" .*", "", bats_df$Average.Lifespan))
+ )

Warning message:
In data.frame(Name = bats_df$Species, Value = as.numeric(sub(" .*",  :
  NAs introduced by coercion

>
> print("--- Original Data ---")
[1] "--- Original Data ---"
> print(bats_clean)
                                                 Name Value
1          Yangochiroptera (Microbat); Example: Big Brown Bat    NA
2       Yangochiroptera (Microbat); Example: Little Brown Bat    NA
3          Yangochiroptera (Microbat); Example: Brandt's Bat    NA
4        Yinpterochiroptera (Megabat); Example: Horseshoe Bat    NA
5          Yinpterochiroptera (Megabat); Example: Vampire Bat    NA
6       Yinpterochiroptera (Megabat); Example: Fringed Myotis    NA
7        Yinpterochiroptera (Megabat); Example: Horseshoe Bat    NA
8         Yinpterochiroptera (Megabat); Example: Brandt's Bat    NA
9          Yangochiroptera (Microbat); Example: Big Brown Bat    NA
10         Yangochiroptera (Microbat); Example: Horseshoe Bat    NA
11         Yangochiroptera (Microbat); Example: Big Brown Bat    NA
12   Yinpterochiroptera (Megabat); Example: Little Brown Bat    NA
13        Yinpterochiroptera (Megabat); Example: Brandt's Bat    NA
14   Yinpterochiroptera (Megabat); Example: Little Brown Bat    NA
15      Yangochiroptera (Microbat); Example: Little Brown Bat    NA
16         Yangochiroptera (Microbat); Example: Bumblebee Bat    NA
17         Yangochiroptera (Microbat); Example: Horseshoe Bat    NA
18         Yangochiroptera (Microbat); Example: Horseshoe Bat    NA
19    Yinpterochiroptera (Megabat); Example: Fringed Myotis    NA
20       Yinpterochiroptera (Megabat); Example: Big Brown Bat    NA
21        Yangochiroptera (Microbat); Example: Fringed Myotis    NA
22         Yangochiroptera (Microbat); Example: Big Brown Bat    NA
```



```
492   Yinpterochiroptera (Megabat); Example: Little Brown Bat    NA
493      Yangochiroptera (Microbat); Example: Fringed Myotis    NA
494   Yinpterochiroptera (Megabat); Example: Little Brown Bat    NA
495 Yinpterochiroptera (Megabat); Example: Egyptian Fruit Bat    NA
496      Yinpterochiroptera (Megabat); Example: Fringed Myotis    NA
497   Yangochiroptera (Microbat); Example: Egyptian Fruit Bat    NA
498        Yangochiroptera (Microbat); Example: Big Brown Bat    NA
499        Yangochiroptera (Microbat); Example: Bumblebee Bat    NA
500        Yangochiroptera (Microbat); Example: Bumblebee Bat    NA
 [ reached 'max' / getOption("max.print") -- omitted 29500 rows ]
>
> duplicates_report <- bats_clean %>%
+   group_by(Name, Value) %>%
+   count() %>%
+   filter(n > 1)
>
> print("--- Duplicate Rows ---")
[1] "--- Duplicate Rows ---"
> print(duplicates_report)
# A tibble: 18 × 3
# Groups:   Name, Value [18]
   Name                                                Value     n
   <chr>                                               <dbl> <int>
 1 Yangochiroptera (Microbat); Example: Big Brown Bat     NA  1672
 2 Yangochiroptera (Microbat); Example: Brandt's Bat      NA  1687
 3 Yangochiroptera (Microbat); Example: Bumblebee Bat     NA  1690
 4 Yangochiroptera (Microbat); Example: Egyptian Fruit Bat NA 1709
 5 Yangochiroptera (Microbat); Example: Fringed Myotis    NA  1749
 6 Yangochiroptera (Microbat); Example: Horseshoe Bat     NA  1636
 7 Yangochiroptera (Microbat); Example: Little Brown Bat  NA  1644
 8 Yangochiroptera (Microbat); Example: Spectral Bat      NA  1592
 9 Yangochiroptera (Microbat); Example: Vampire Bat       NA  1696
10 Yinpterochiroptera (Megabat); Example: Big Brown Bat   NA  1693
11 Yinpterochiroptera (Megabat); Example: Brandt's Bat    NA  1723
12 Yinpterochiroptera (Megabat); Example: Bumblebee Bat   NA  1617
13 Yinpterochiroptera (Megabat); Example: Egyptian Fruit Bat NA 1657
14 Yinpterochiroptera (Megabat); Example: Fringed Myotis  NA  1732
15 Yinpterochiroptera (Megabat); Example: Horseshoe Bat   NA  1653
```

PRANAV CHAUGULE

S075

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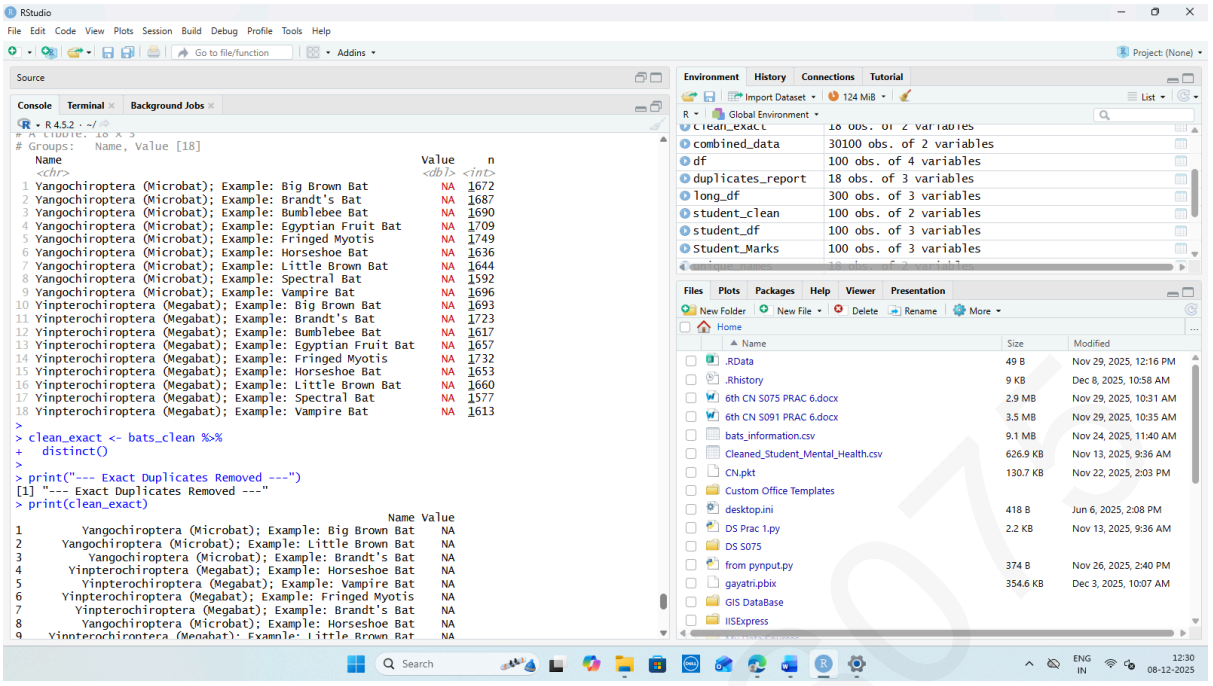
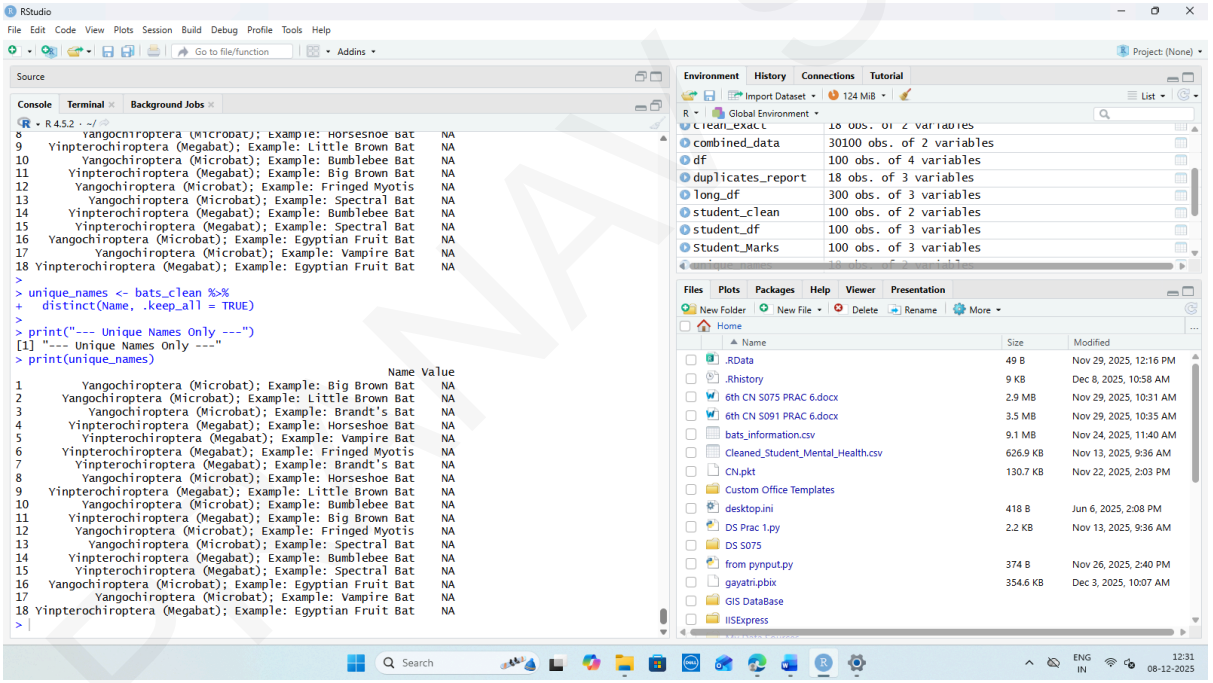
PRAC: 11 12 13 14 15





14 Extracting date components using lubridate:: functions (R).

OUTPUT:-

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S075

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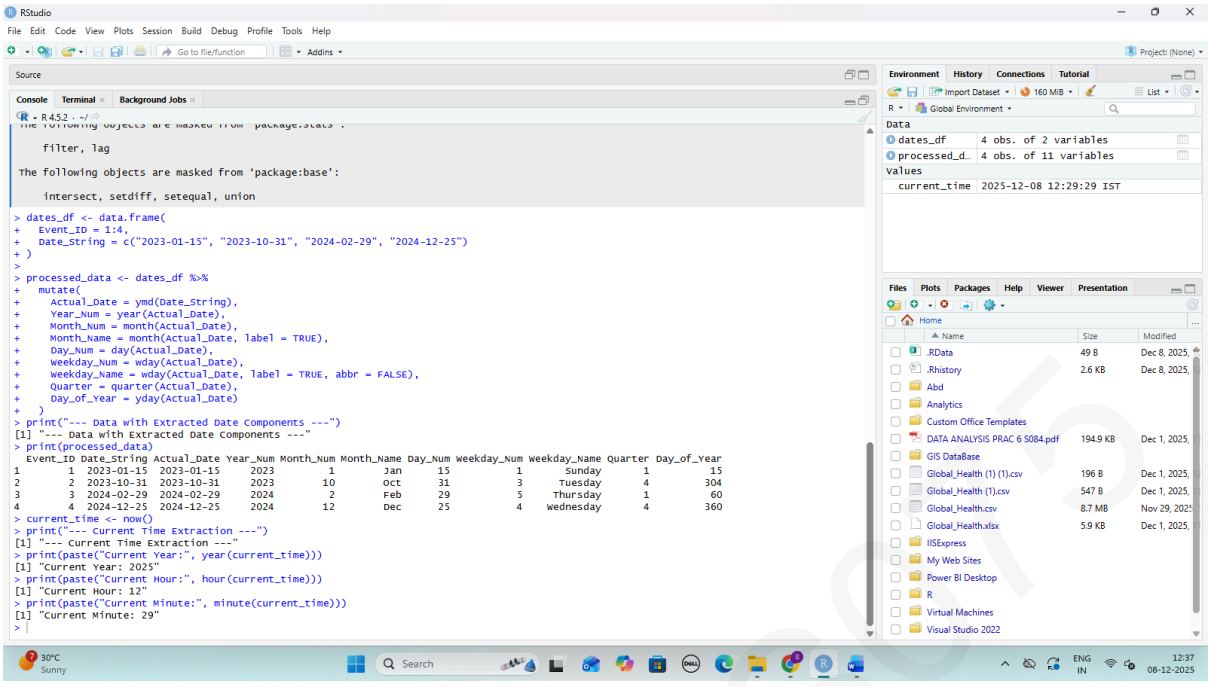
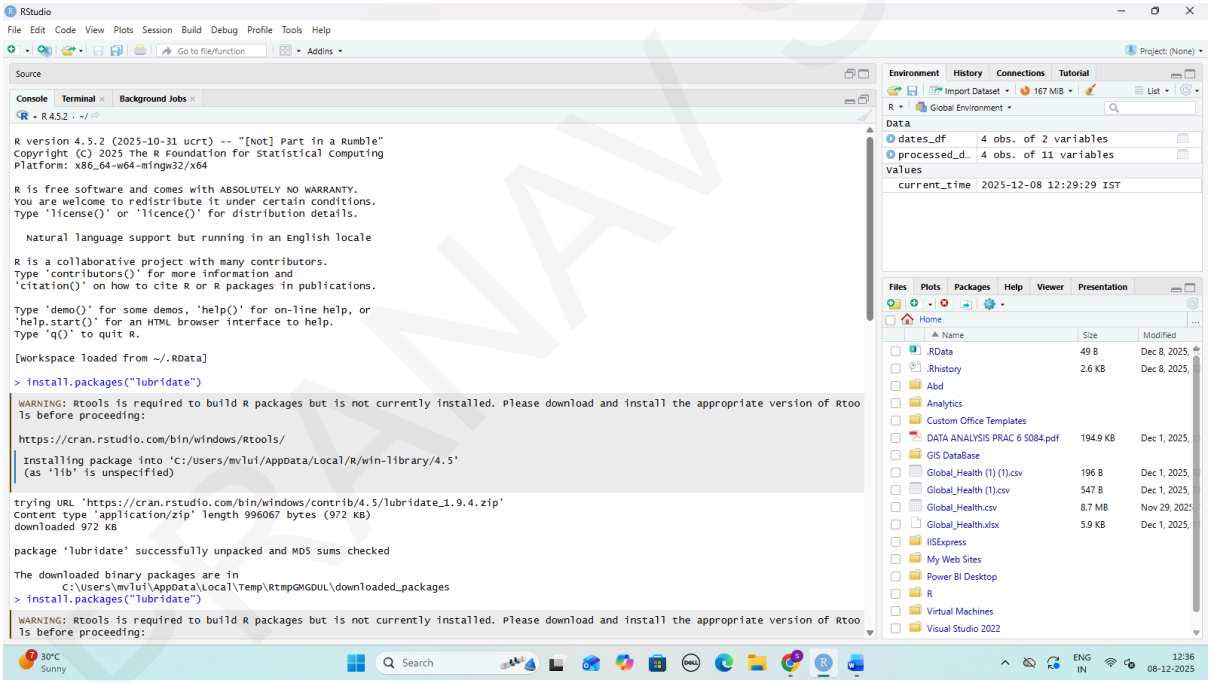
PRAC: 11 12 13 14 15





15 Generating basic summaries using str() or summary() (R).

OUTPUT:-

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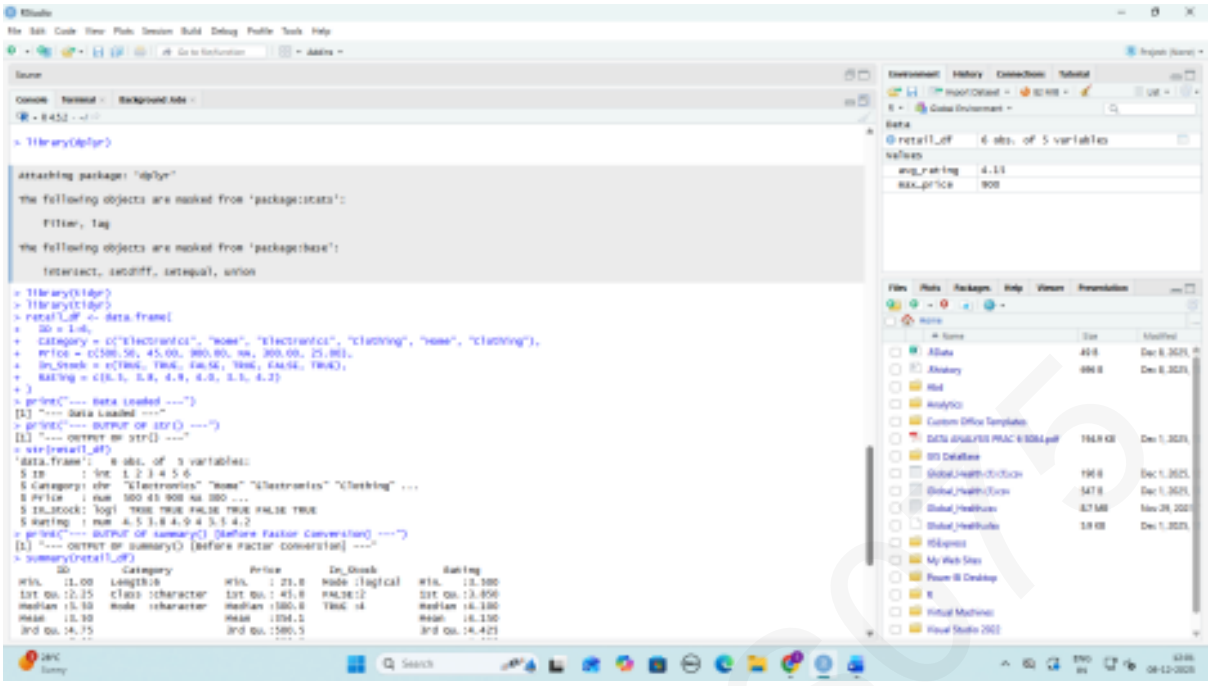

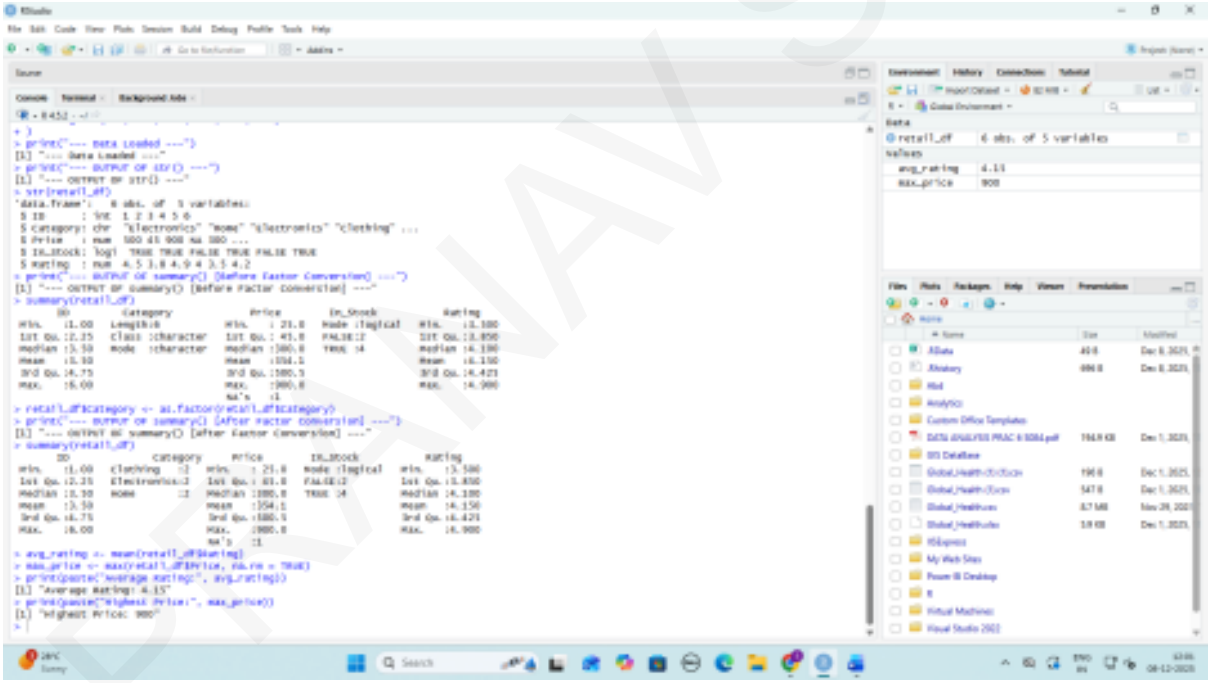

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S075