

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

SUBJECT :- DATA ANALYSIS WITH SAS/SPSS/R

PRACTICAL – 10

AIM:- Creating new variables using transformations and calculations in R.
import dataset.

OUTPUT:-

```
RStudio
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Source
Console Terminal Background Jobs

R - R4.5.2 ~\...
> df_clean <- df %>%
+   mutate(
+     director = replace_na(director, "unknown Director"),
+     cast = replace_na(cast, "unknown cast"),
+     country = replace_na(country, "unknown Country"),
+     rating = replace_na(rating, "Not Rated")
+   )
>
> print("--- Cleaned Data ---")
[1] "--- Cleaned Data ---"
> print(head(df_clean))
  show_id type title director
1      s1  Movie Dick Johnson Is Dead Kirsten Johnson
2      s2 TV Show Blood & Water unknown Director
3      s3 TV Show Ganglands Julien Leclercq
4      s4 TV Show Jailbirds New Orleans unknown Director
5      s5 TV Show Kota Factory unknown Director
6      s6 TV Show Midnight Mass Mike Flanagan

cast
1
Unknown Cast
2 Ama Qamata, Khosi Ngema, Gail Mablane, Thabang Molaba, Dillon Windvogel, Natasha Thahane, Arno Greeff, Xolile Tshabalala, Getmore Sithole, Cindy Mahlangu, Ryle
De Morny, Greteli Fincham, Sello Maake Ka-Ncube, Odwa Gwanya, Mekaila Mathys, Sandi Schultz, Duane Williams, Shamilla Miller, Patrick Mofokeng
3
Bouajila, Tracy Gotoas, Samuel Jouy, Nabila Akkari, Sofia Lesaffre, Salim Kechiouche, Noureddine Farihi, Geert van Rampelberg, Bakary Diombera
4
Unknown Cast
5
Mayur More, Jitendra Kumar, Ranjan Raj, Alam Khan, Ahsaas Channa, Revathi Pillai, Urvi Singh, Arun Kumar
6
n, Igby Rigney, Rahul Kohli, Annarah Cymone, Annabeth Gish, Alex Essoe, Rahul Abburi, Matt Biedel, Michael Trucco, Crystal Balint, Louis Oliver

country date_added release_year rating duration listed_in
1 United States September 25, 2021 2020 PG-13 90 min Documentaries
2 South Africa September 24, 2021 2021 TV-MA 2 Seasons International TV Shows, TV Dramas, TV Mysteries
3 Unknown Country September 24, 2021 2021 TV-MA 1 Season Crime TV Shows, International TV Shows, TV Action & Adventure
4 Unknown Country September 24, 2021 2021 TV-MA 1 Season Docuseries, Reality TV
5 India September 24, 2021 2021 TV-MA 2 Seasons International TV Shows, Romantic TV Shows, TV Comedies
6 Unknown Country September 24, 2021 2021 TV-MA 1 Season TV Dramas, TV Horror, TV Mysteries

description
1 As her father nears the end of his life, filmmaker Kirsten Johnson stages his death in inventive and comical ways to help them both face the inevitable.
2 After crossing paths at a party, a Cape Town teen sets out to prove whether a private-school swimming star is her sister who was abducted at birth.
3 To protect his family from a powerful drug lord, skilled thief Mehdi and his expert team of robbers are pulled into a violent and deadly turf war.
4 Feuds, flirtings and toilet talk go down among the incarcerated women at the Orleans Justice Center in New Orleans on this gritty reality series.
5 In a city of coaching centers known to train India's finest collegiate minds, an earnest but unexceptional student and his friends navigate campus life.
6 The arrival of a charismatic young priest brings glorious miracles, ominous mysteries and renewed religious fervor to a dying town desperate to believe.

>
> # 2. METHOD A: ARITHMETIC CALCULATIONS
> df_calc <- df_clean %>%
+   mutate(
+     content_age = 2025 - release_year
+   )
>
> print("--- Method A: Arithmetic (Content Age) ---")
[1] "--- Method A: Arithmetic (Content Age) ---"
> print(df_calc %>% select(title, release_year, content_age) %>% head())
  title release_year content_age
1 Dick Johnson Is Dead 2020 5
2 Blood & Water 2021 4
3 Ganglands 2021 4
4 Jailbirds New Orleans 2021 4
5 Kota Factory 2021 4
6 Midnight Mass 2021 4
```

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>
> # 3. METHOD B: CONDITIONAL LOGIC
> df_logic <- df_calc %>%
+ mutate(
+   Era = case_when(
+     Content_Age > 20 ~ "old",
+     Content_Age > 10 ~ "Modern",
+     TRUE ~ "Recent"
+   ),
+   type_Label = ifelse(type == "Movie", "Film", "show")
+ )
>
> print("---- Method B: Logic Results ----")
[1] "---- Method B: Logic Results ----"
> print(df_logic %>% select(title, Content_Age, Era, type, type_Label) %>% head())
  title content_Age Era type type_Label
1 Dick Johnson Is Dead      5 Recent Movie Film
2 Blood & water          4 Recent TV Show Show
3 Ganglands              4 Recent TV Show Show
4 Jailbirds New Orleans  4 Recent TV Show Show
5 Kota Factory            4 Recent TV Show Show
6 Midnight Mass          4 Recent TV Show Show

> # 4. METHOD C: TEXT TRANSFORMATION (paste)
> df_text <- df_logic %>%
+ mutate(
+   summary = paste(
+     title,
+     "-", type,
+     "| Country:", country,
+     "| Rating:", rating
+   )
+ )
>
> print("---- Method C: Text Transformation ----")
```

```
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+ )
>
> print("---- Method C: Text Transformation ----")
[1] "---- Method C: Text Transformation ----"
> print(head(df_text$summary))
[1] "Dick Johnson Is Dead - Movie | Country: United States | Rating: PG-13" "Blood & water - TV Show | Country: South Africa | Rating: TV-MA"
[3] "Ganglands - TV Show | Country: unknown Country | Rating: TV-MA" "Jailbirds New Orleans - TV Show | Country: unknown Country | Rating: TV-MA"
[5] "Kota Factory - TV Show | Country: India | Rating: TV-MA" "Midnight Mass - TV Show | Country: unknown Country | Rating: TV-MA"

> # 5. FINAL WORKFLOW (All Together)
> final_dataset <- df_clean %>%
+ mutate(
+   Content_Age = 2025 - release_year,
+   Era = case_when(
+     Content_Age > 20 ~ "old",
+     Content_Age > 10 ~ "Modern",
+     TRUE ~ "Recent"
+   ),
+   summary = paste0(
+     title, " | ", country,
+     " | Released: ", release_year,
+     " | Age: ", Content_Age,
+     " | ", rating
+   )
+ )
>
> print("---- Final Combined Dataset ----")
[1] "---- Final Combined Dataset ----"
> print(head(final_dataset))
  show_id type title director
1 s1 Movie Dick Johnson Is Dead Kirsten Johnson
2 s2 TV Show Blood & water Unknown Director
3 s3 TV Show Ganglands Julien Leclercq
4 s4 TV Show Jailbirds New Orleans Unknown Director
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4 s4 TV Show Jailbirds New Orleans unknown Director
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Summary
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2 4 Recent Blood & Water | South Africa | Released: 2021 | Age: 4 | TV-MA
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