In [1]:
```
import pandas as pd
```

In [5]:
```
# Load the Risk Register file
df = pd.read_excel("/media/sf_Shared_docs/Risk_Register_2025.xlsx")

# Display the table
df
```

Out[5]:

	Risk ID	Risk Description	Likelihood (1-5)	Impact (1-5)	Risk Appetite	Risk Tolerance	Status
0	R1	Data breach in HR system	4	5	12	15	High
1	R2	Vendor system outage	3	4	12	15	Medium
2	R3	Insider threat	2	5	12	15	Medium
3	R4	Phishing attack	5	3	12	15	High
4	R5	Financial reporting error	2	4	12	15	Low
5	R6	Cloud service misconfig	4	4	12	15	High

In [6]:
```
# Calculate Risk Score
df["Risk Score"] = df["Likelihood (1-5)"] * df["Impact (1-5)"]

# Display updated table
display(df)
```

	Risk ID	Risk Description	Likelihood (1-5)	Impact (1-5)	Risk Appetite	Risk Tolerance	Status	Risk Score
0	R1	Data breach in HR system	4	5	12	15	High	20
1	R2	Vendor system outage	3	4	12	15	Medium	12
2	R3	Insider threat	2	5	12	15	Medium	10
3	R4	Phishing attack	5	3	12	15	High	15
4	R5	Financial reporting error	2	4	12	15	Low	8
5	R6	Cloud service misconfig	4	4	12	15	High	16

In [9]:
```
# Filtering Risks by Status
df_high = df[df["Status"] == "High"]
df_medium = df[df["Status"] == "Meduim"]
df_low = df[df["Status"] == "Low"]

# Display results
print("\nHigh Risks:")
display(df_high)

print("\nMedium Risks")
display(df_medium)

print("\nLow Risks:")
display(df_low)
```

```
High Risks:
```

	Risk ID	Risk Description	Likelihood (1-5)	Impact (1-5)	Risk Appetite	Risk Tolerance	Status	Risk Score
0	R1	Data breach in HR system	4	5	12	15	High	20
3	R4	Phishing attack	5	3	12	15	High	15
5	R6	Cloud service misconfig	4	4	12	15	High	16

```
Medium Risks
```

Risk ID	Risk Description	Likelihood (1-5)	Impact (1-5)	Risk Appetite	Risk Tolerance	Status	Risk Score

```
Low Risks:
```

	Risk ID	Risk Description	Likelihood (1-5)	Impact (1-5)	Risk Appetite	Risk Tolerance	Status	Risk Score
4	R5	Financial reporting error	2	4	12	15	Low	8

In [11]:
```
#Group by Status to count number of risks
grouped_status = df.groupby("Status")["Risk ID"].count()

# Display results
print("\nCount by Risks by Status:")
display(grouped_status)
```

```
Count by Risks by Status:
Status
High      3
Low       1
Medium    2
Name: Risk ID, dtype: int64
```

In [17]:
```
# Sum of Risk Scores by Status
total_risk = df.groupby("Status")["Risk Score"].sum()

# Avearage Risk Score by Status
avg_risk = df.groupby("Status")["Risk Score"].mean()

# Maximum Risk Score by Status
max_risk = df.groupby("Status")["Risk Score"].max()

# Minimum Risk Score by Status
min_risk = df.groupby("Status")["Risk Score"].min()

# Display results
print("\nTotal Risk Score by Status:")
display(total_risk)

print("\nAverage Risk Score by Status:")
display(avg_risk)

print("\nMaximum Risk Score by Status:")
display(max_risk)
```

```
print("\nMinimum Risk Score by Status:")
display(min_risk)
```

```
Total Risk Score by Status:
Status
High      51
Low        8
Medium    22
Name: Risk Score, dtype: int64
Average Risk Score by Status:
Status
High      17.0
Low        8.0
Medium    11.0
Name: Risk Score, dtype: float64
Maximum Risk Score by Status:
Status
High      20
Low        8
Medium    12
Name: Risk Score, dtype: int64
Minimum Risk Score by Status:
Status
High      15
Low        8
Medium    10
Name: Risk Score, dtype: int64
```

In [ ]: