

```
import pandas as pd
import warnings
warnings.filterwarnings("ignore")

dataset={"Roll_No":[1,1,2,2,1,2],
        "Subject":["DS","Java","DS","Java","DS","Java"],
        "Marks":[25,40,30,26,40,50],
        "Date":["01-01-2023","02-01-2023","01-01-2023","02-01-2023","15-01-2023","15-01-2023"]}
```

```
dataframe=pd.DataFrame(dataset)
```

```
print(dataframe)
```

	Roll_No	Subject	Marks	Date
0	1	DS	25	01-01-2023
1	1	Java	40	02-01-2023
2	2	DS	30	01-01-2023
3	2	Java	26	02-01-2023
4	1	DS	40	15-01-2023
5	2	Java	50	15-01-2023

```
dataframe['Date'] = pd.to_datetime(dataframe['Date'], format='%d-%m-%Y')
```

```
print(dataframe)
```

	Roll_No	Subject	Marks	Date
0	1	DS	25	2023-01-01
1	1	Java	40	2023-01-02
2	2	DS	30	2023-01-01
3	2	Java	26	2023-01-02
4	1	DS	40	2023-01-15
5	2	Java	50	2023-01-15

```
dataframe.sort_values(by=['Roll_No', 'Subject', 'Date'], ascending=[True, True, False], inplace=True)
```

```
result = pd.DataFrame(columns=['Roll_No', 'Subject', 'M1', 'M2', 'M3', 'Last_Attempt_Date'])
```

```
grouped = dataframe.groupby(['Roll_No', 'Subject'])
```

```
for (roll, subject), group in grouped:
    marks = group['Marks'].tolist()
    dates = group['Date'].tolist()

    m1 = marks[0] if len(marks) >= 1 else 0
    m2 = marks[1] if len(marks) >= 2 else 0
    m3 = marks[2] if len(marks) >= 3 else 0
    last_attempt_date = dates[0].strftime('%d-%m-%Y') if len(dates) >= 1 else None
```

```
result = result.append({'Roll_No': roll, 'Subject': subject,
                        'M1': m1,
                        'M2': m2,
                        'M3': m3,
                        'Last_Attempt_Date': last_attempt_date}, ignore_index=True)
```

```
print(result)
```

	Roll_No	Subject	M1	M2	M3	Last_Attempt_Date
0	1	DS	40	25	0	15-01-2023
1	1	Java	40	0	0	02-01-2023
2	2	DS	30	0	0	01-01-2023
3	2	Java	50	26	0	15-01-2023

