Task 1: Analyse user engagement across internship domains

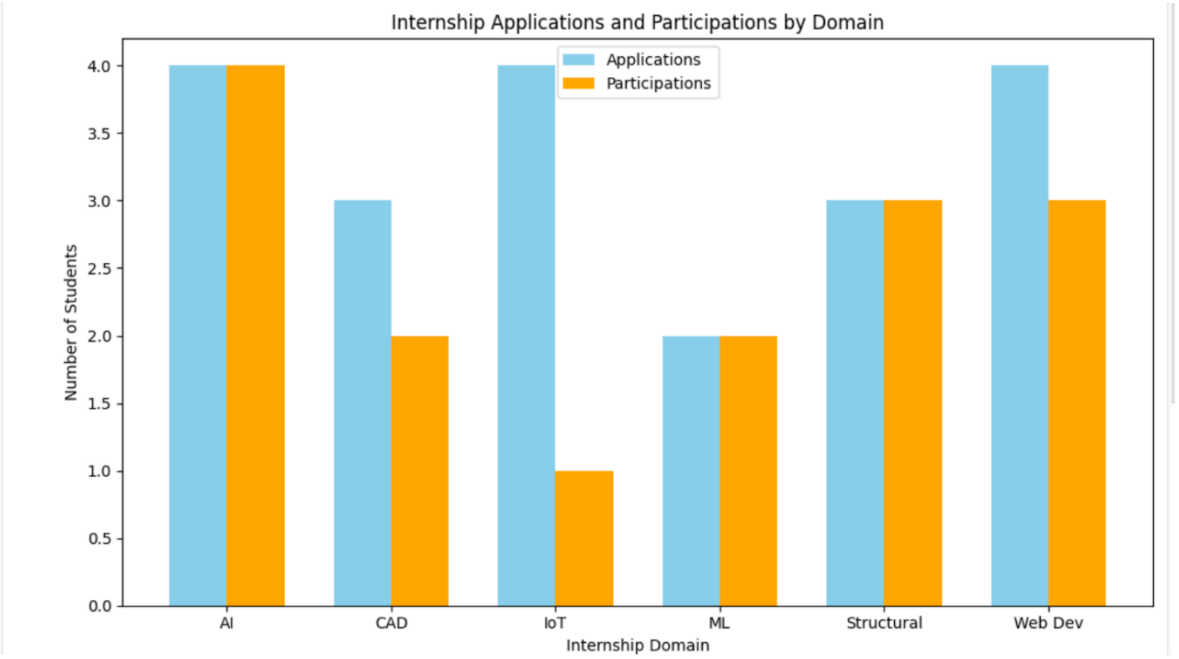
code:

```
import pandas as pd

import matplotlib.pyplot as plt


# Load internship data

internship_df = pd.read_csv("/content/DOC-20250611-WA0003. - DOC-20250611-WA0003..csv")


# Group by internship domain

domain_summary = internship_df.groupby("Internship_Domain").agg(

    Applications=('Applied', 'sum'),

    Participations=('Participated', 'sum')

).reset_index()


# Plotting

plt.figure(figsize=(10, 6))

bar_width = 0.35

index = range(len(domain_summary))

most_applied_domain = domain_summary.loc[domain_summary['Applications'].idxmax()]

print("Most Applied Domain:")

print(most_applied_domain)


# Find most popular domain by number of participations

most_participated_domain = domain_summary.loc[domain_summary['Participations'].idxmax()]

print("\nMost Participated Domain:")
```

```
print(most_participated_domain)


plt.bar(index, domain_summary['Applications'], bar_width, label='Applications',
color='skyblue')

plt.bar([i + bar_width for i in index], domain_summary['Participations'], bar_width,
label='Participations', color='orange')


plt.xlabel('Internship Domain')

plt.ylabel('Number of Students')

plt.title('Internship Applications and Participations by Domain')

plt.xticks([i + bar_width/2 for i in index], domain_summary['Internship_Domain'])

plt.legend()

plt.tight_layout()

plt.show()
```

output:

```
Most Applied Domain:
Internship_Domain    AI
Applications          4
Participations        4
Name: 0, dtype: object

Most Participated Domain:
Internship_Domain    AI
Applications          4
Participations        4
Name: 0, dtype: object
```


Internship Applications and Participations by Domain
Applications
Participations
Number of Students
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
AI
CAD
IoT
ML
Structural
Web Dev
Internship Domain