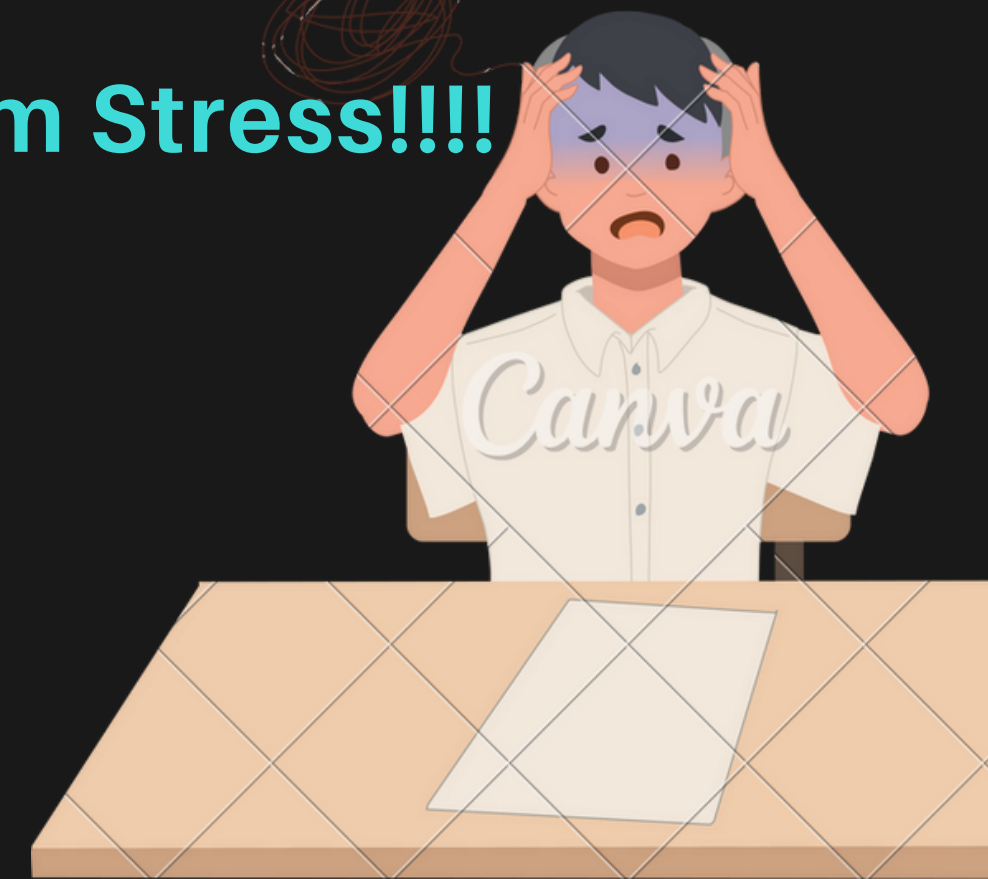


Exam Stress!!!!



Exam Stress Analysis

Python Pioneers - Team 8

Members :

Neenu Nair (*Team Lead*)

Sridevi Basavaraju

Pallavi Reddy

Harshalatha Ponugumati

Prajakta Vaidya

Hackathon Journey

Collaboration



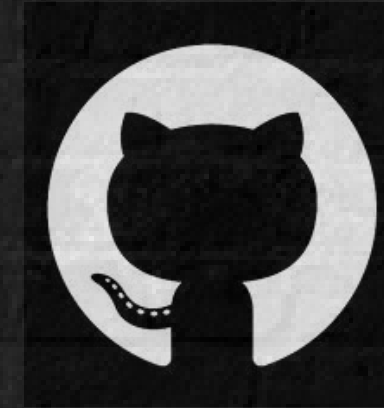
Daily Scrum Calls



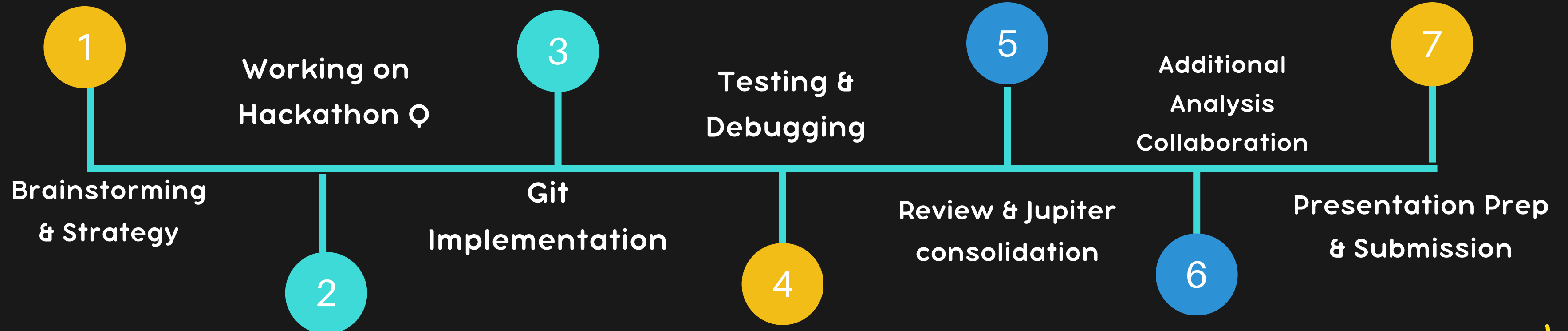
Analysis



Git Hub



Jupyter Notebook





Exam Stress Analysis

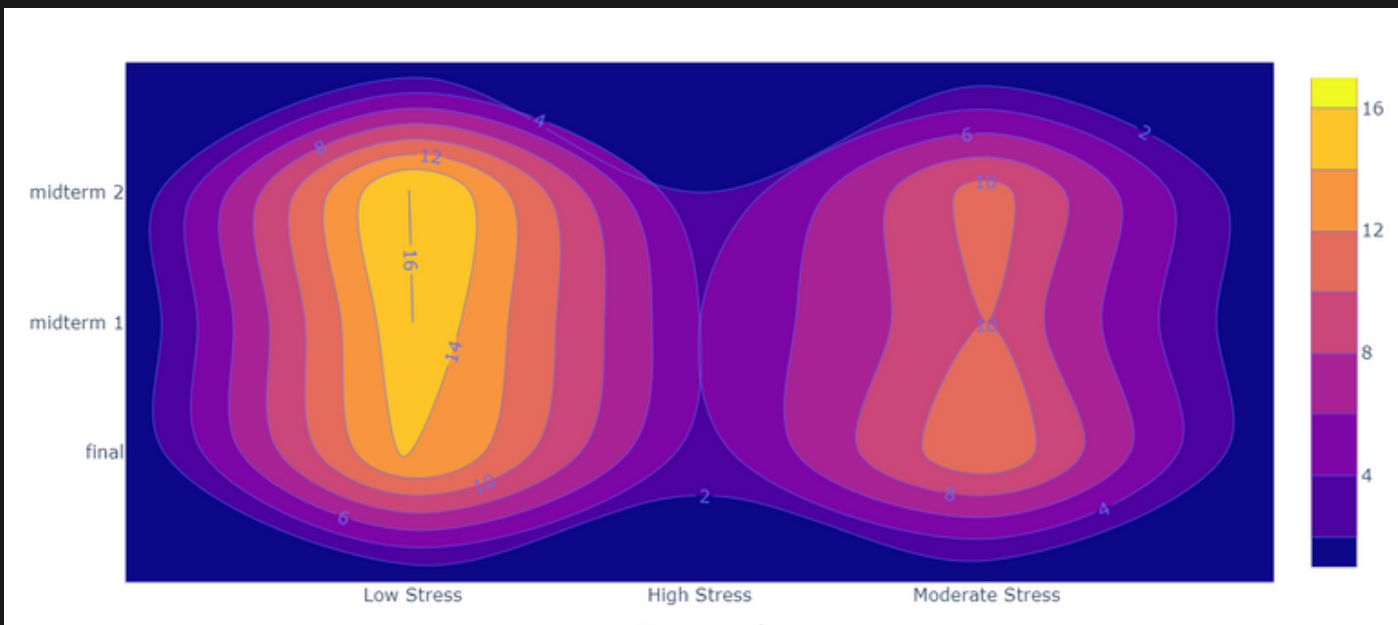
- Exploratory DataAnalysis
- **Tools:** Python ,PostgreSQL

pandas

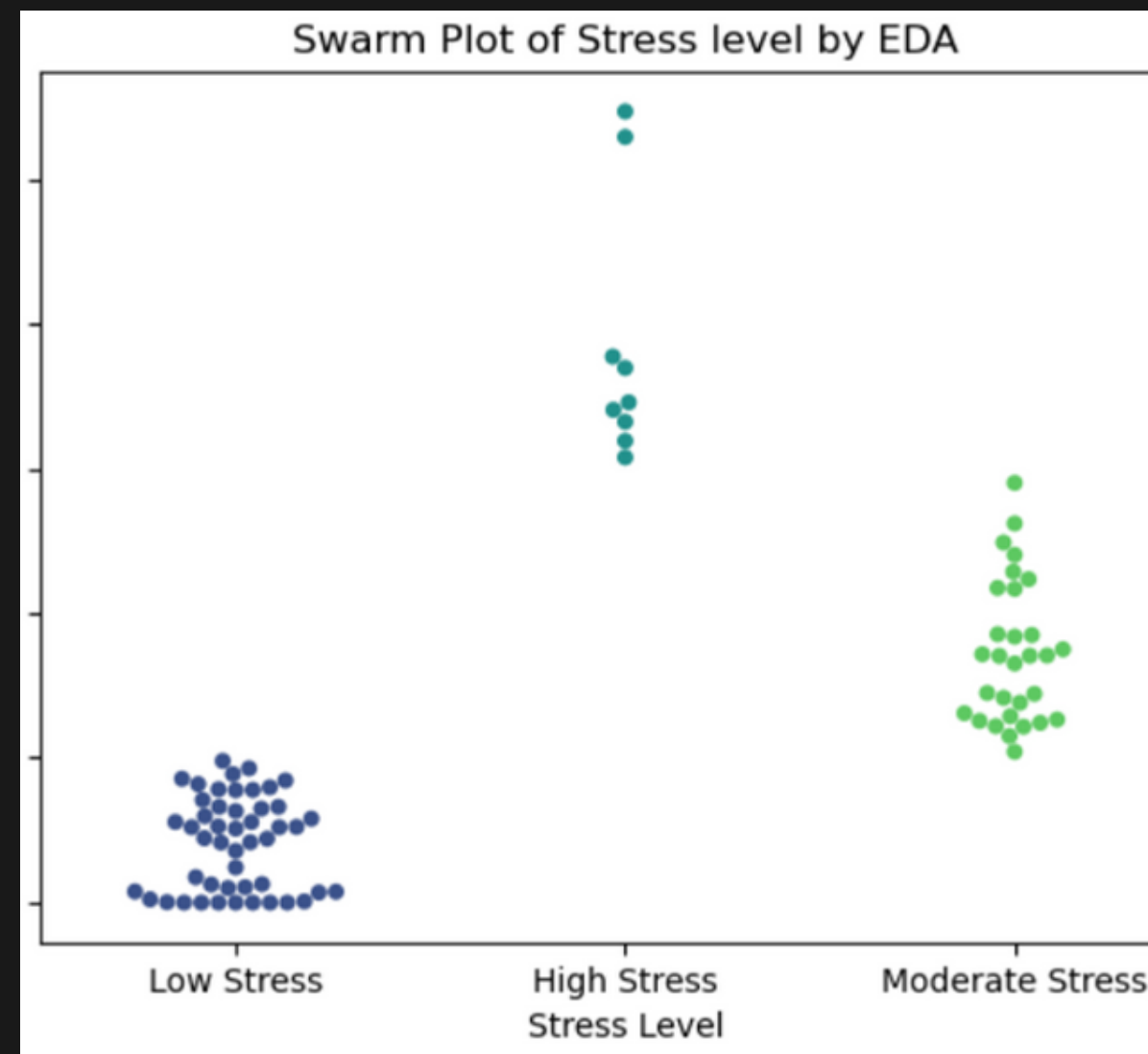
matplotlib

seaborn

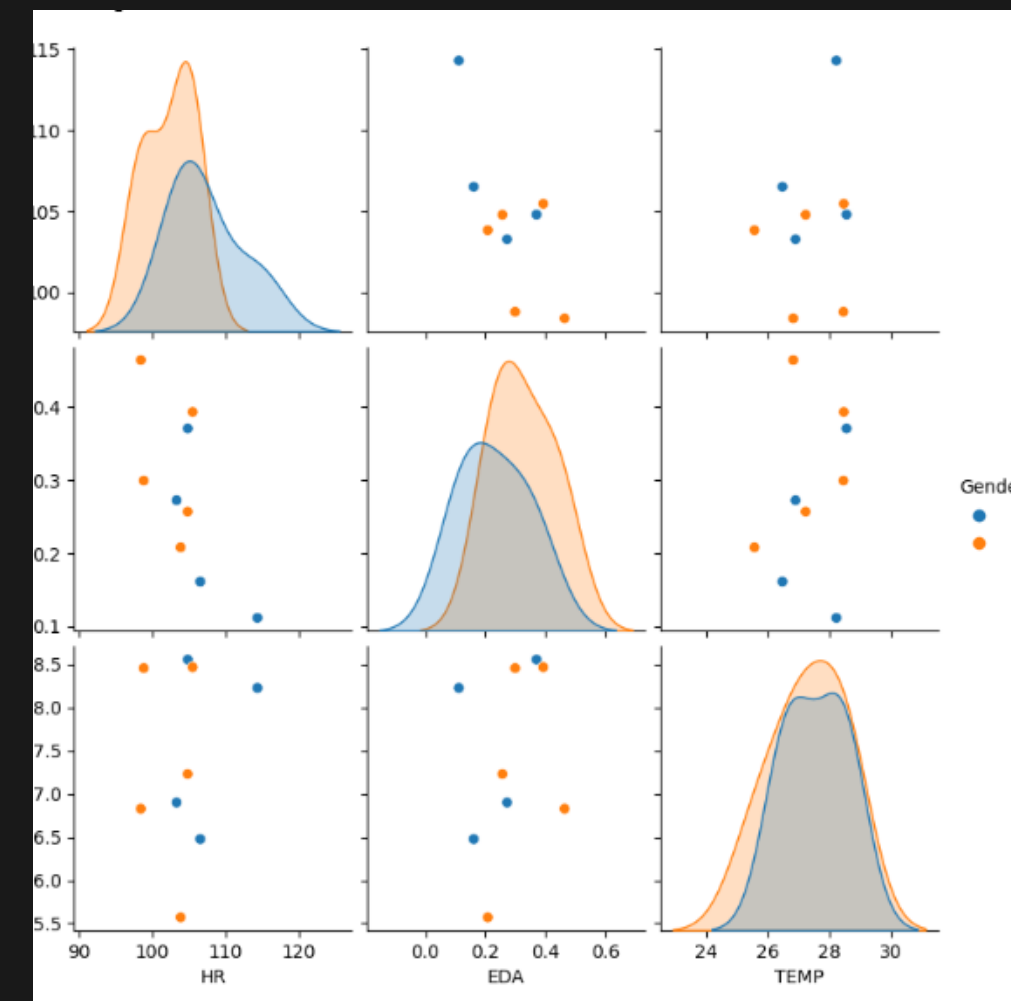
plotly



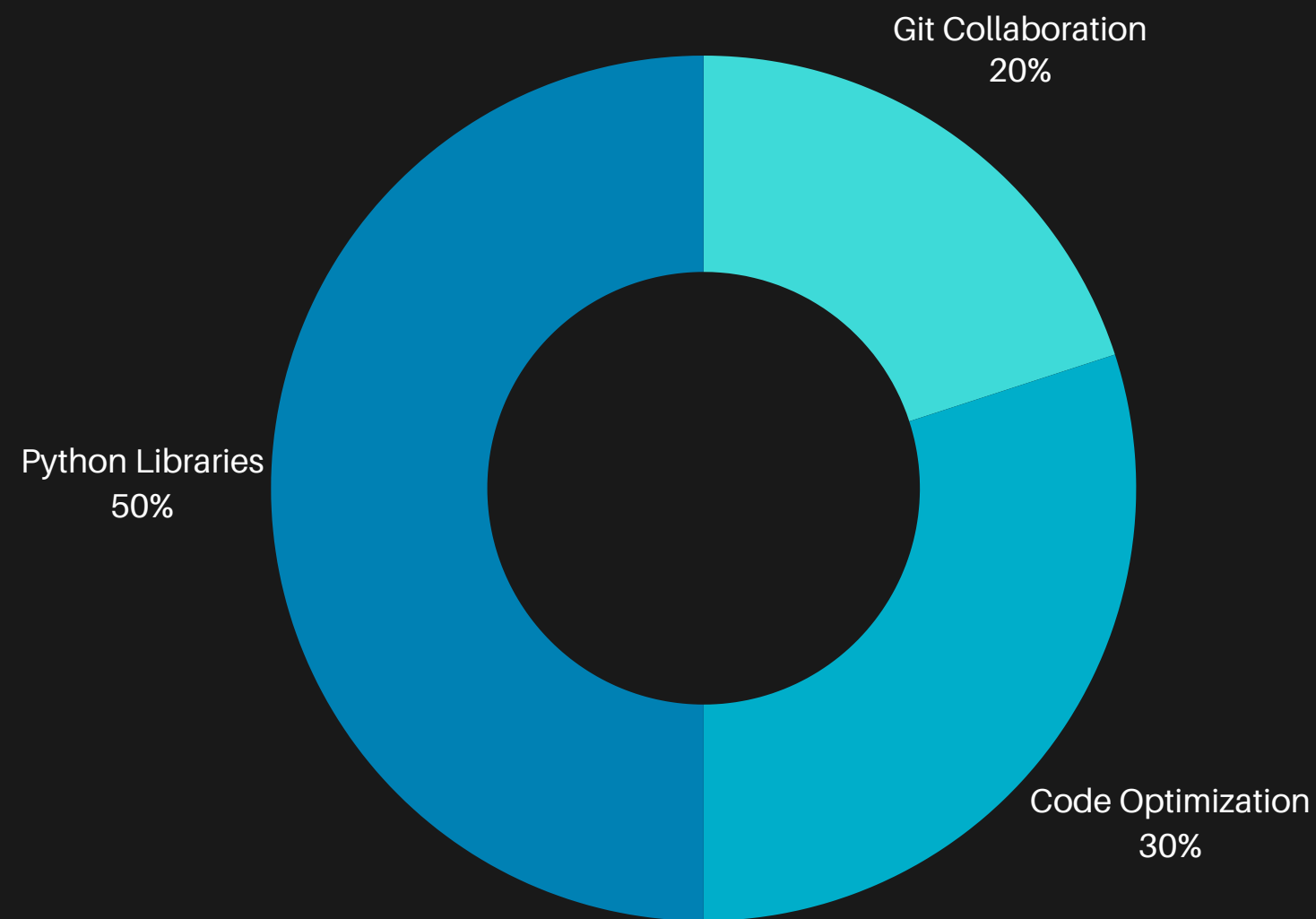
Density_contour



Swarm Plot

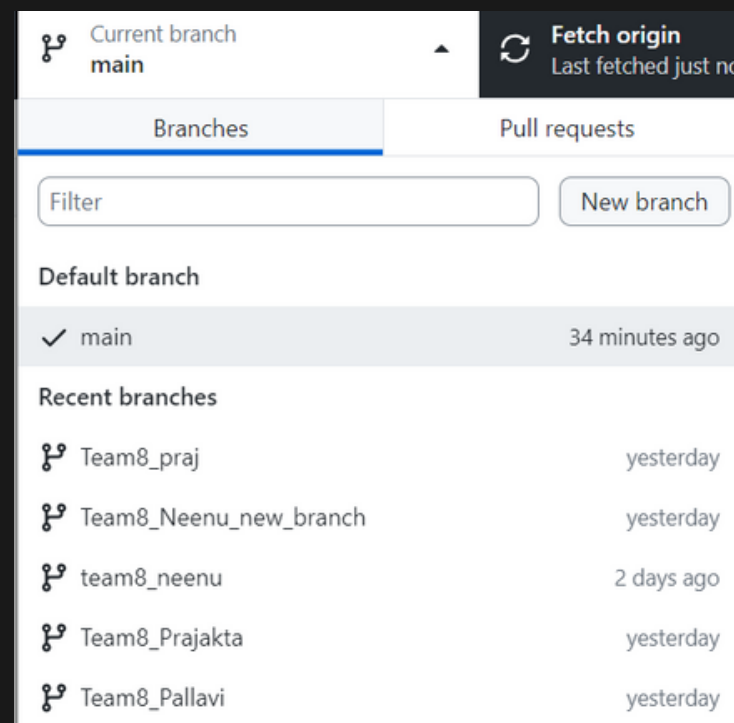


Pairplot



Challenges

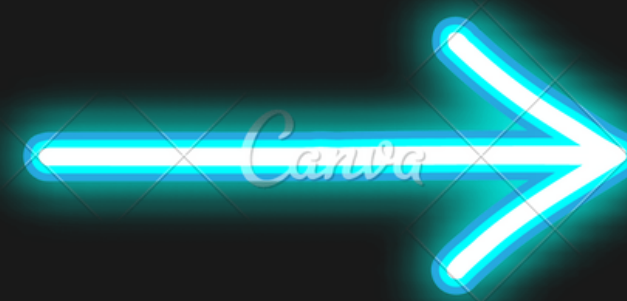
- Created Branches for Github Collaboration



Excluding merges, **5 authors** have pushed **90 commits** to main and **96 commits** to all branches. On main, **13 files** have changed and there have been **23,501 additions** and **2 deletions**.

- Using the mean interbeat interval per minute, calculate the Root Mean Square of successive differences for any 30 minute interval and add this to IBI

Created bins using `pd.cut()`



| | bin(30 min Interval) | IBI |
|---|----------------------|----------|
| 0 | [0, 30) | 0.483357 |
| 1 | [30, 60) | 0.599263 |
| 2 | [60, 90) | 0.636814 |
| 3 | [90, 120) | 0.648348 |
| 4 | [120, 150) | 0.652954 |
| 5 | [150, 180) | 0.600565 |
| 6 | [180, 210) | 0.634305 |
| 7 | [210, 240) | 0.512250 |

Optimization Techniques



1

Index Optimization



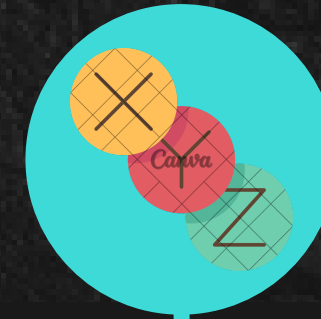
2

Memory
Optimization



3

Filter Optimization



4

Parallelism



5

Time optimization

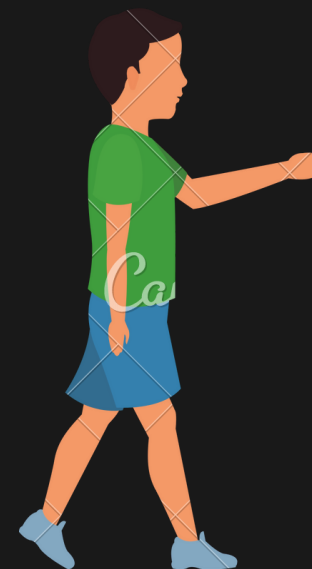
```
#Filtering data of Student S01 using query method
df_eda_S01=df_EDA.query("Student_id=='S01'")
df_hr_S01=df_HR.query("Student_id=='S01'")

#Merging the filtered data
df_eda_hr=pd.merge(df_eda_S01,df_hr_S01, on=['Student_id','Time in mins','Exam'], how='outer')
eda_01=df_eda_hr[['Student_id','Time in mins','Exam','EDA','HR']]

df_temp_S01=df_Temp.query("Student_id=='S01'")
df_ibi_S01=df_IBI.query("Student_id=='S01'")
df_temp_ibi=pd.merge(df_temp_S01,df_ibi_S01,on=['Student_id','Time in mins','Exam'],how='outer')
df_temp_ibi=df_temp_ibi[['Student_id','Time in mins','Exam','TEMP','IBI']]
```



Stretch



Take a short walk



Exercise regularly



THANK YOU