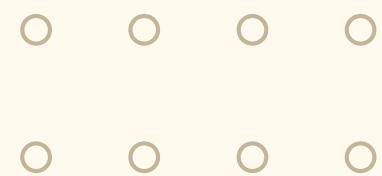


Database Final Project

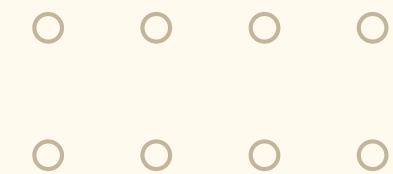
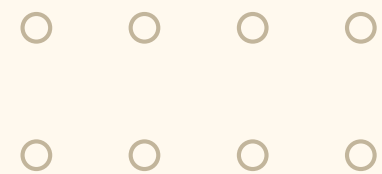
心理輔導 LineBot

111550057莊婷馨、111550113謝詠晴、111550170卓建均、0811517楊雨宸



INTRODUCTION

- Motivation
- Application description



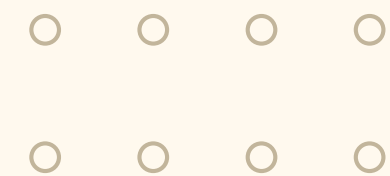
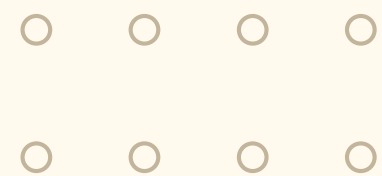
DATASET

- Data sources

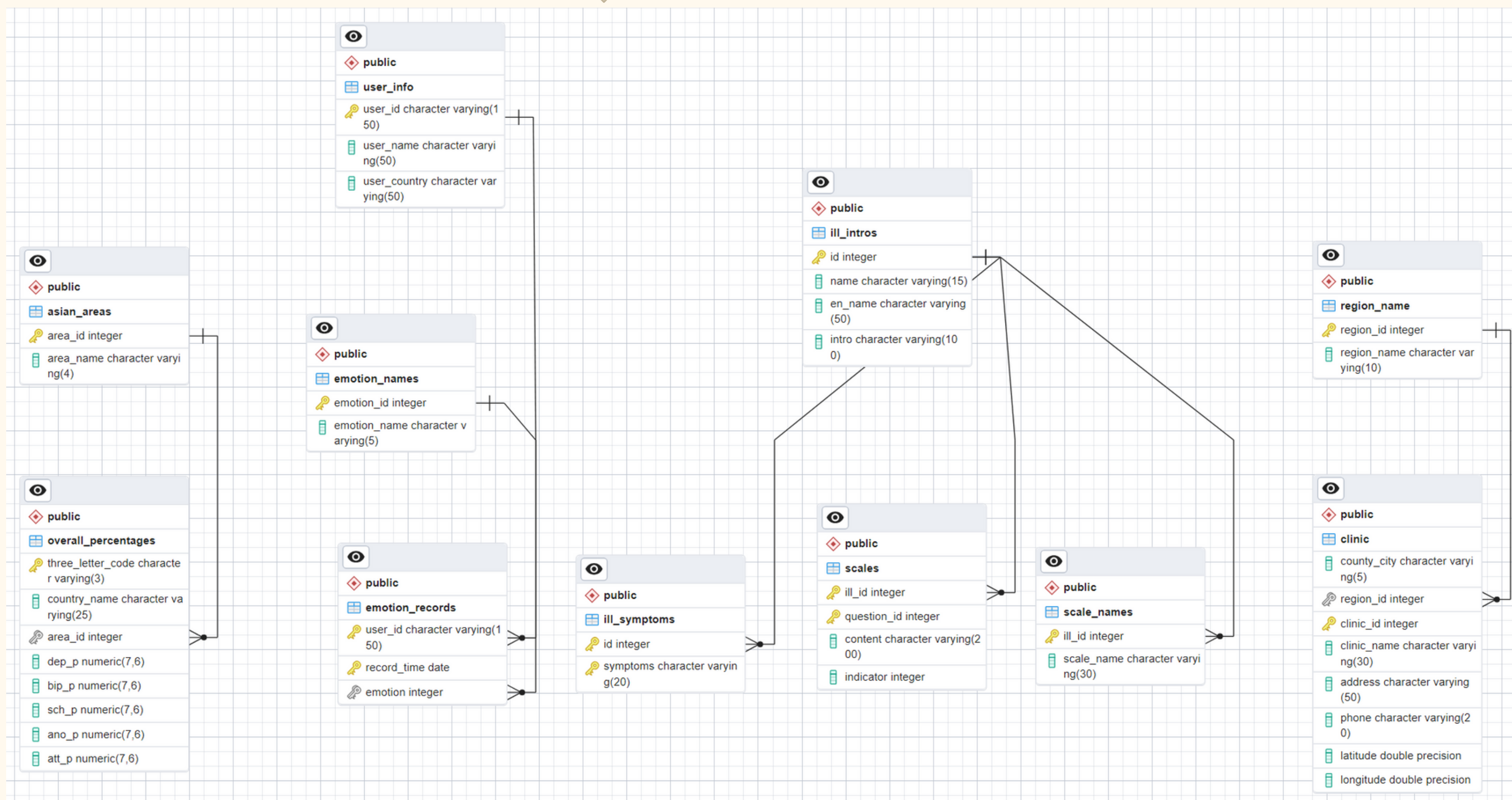
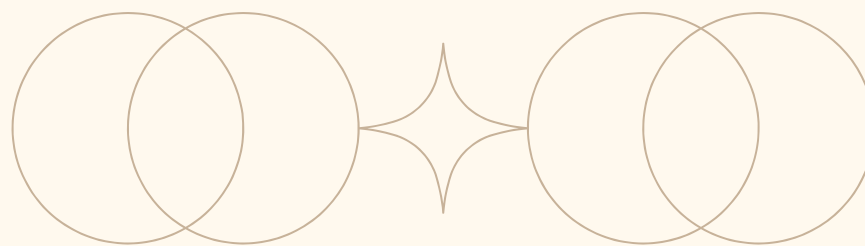
- kaggle
 - 疾病各國盛行率
- 搜尋引擎
 - 疾病資訊
 - 測驗量表
 - 心輔資源
- 使用者輸入
 - 用戶資訊
 - 心情日記

- Import Data

- \copy
- SQL commands



SCHEMA



FUNCTION & SQL

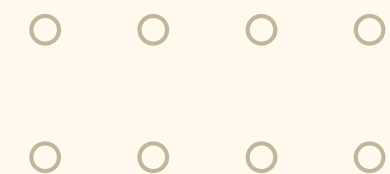
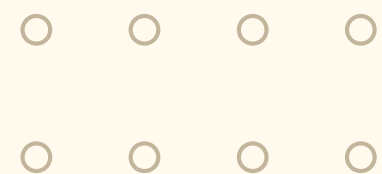
- Why our application need database ?

- 查看心理疾病相關資訊

- 疾病介紹
 - 簡介說明、常見症狀
 - 各國盛行率
- 量表測驗
 - 不同疾病對應的題目
- 心輔資源
 - 不同區域的診所、診所位置資訊

- 紀錄與回顧使用者每日心情

- 心情日記
 - user, date, emotion
- 會員註冊
 - user 資料庫
- 數據紀錄
 - 單日
 - 一週內、一個月內



FUNCTION & SQL

- Related SQL queries : 以疾病介紹-常見症狀為例

```
SQL_ILL_SYMPTOM = """
select symptoms,name
from ill_symptoms
join ill_intros on ill_symptoms.id=ill_intros.id
where ill_symptoms.id = %s
"""

cur.execute(SQL_ILL_SYMPTOM,(int(item_id),))          #fetch data from rds ill_intros table
conn.commit()
rows = cur.fetchall()
# Find the row with the matching item_id
selected_row = []
for row in rows:
    symp,name = row
    iname=name
    selected_row.append(symp)

if selected_row:
    # Join the symptoms into a string
    symptoms_str = "\n- ".join(selected_row)
    msg = "%s的常見症狀:\n- %s" % (iname,symptoms_str)
    line_bot_api.reply_message(event.reply_token, TextSendMessage(text=msg))
```

FUNCTION & SQL

- Related SQL queries : 以心情日記為例

CHECK

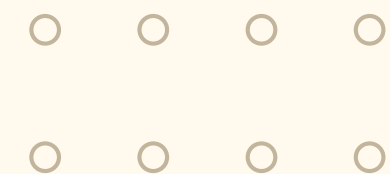
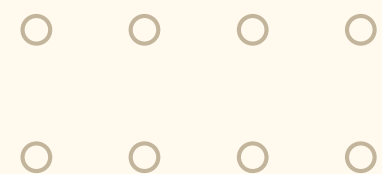
```
sql = "SELECT * FROM emotion_records WHERE user_id = %s AND record_time = %s;"
cur.execute(sql, (user_id, str(date)))
existing_record = cur.fetchone()
return existing_record is not None
```

INSERT

```
sql="INSERT INTO emotion_records (user_id,record_time,emotion) VALUES (%s, %s,%s);"
cur.execute(sql, (user_id, str(date),emotion_value))
conn.commit()
print("insert")
```

UPDATE

```
sql = "UPDATE emotion_records SET emotion = %s WHERE user_id = %s AND record_time = %s;"
cur.execute(sql, (emotion_value, user_id, str(date)))
conn.commit()
feedback(event ,emotion_value)
```



FUNCTION & SQL

- Related SQL queries : 以數據紀錄-查看一週內為例

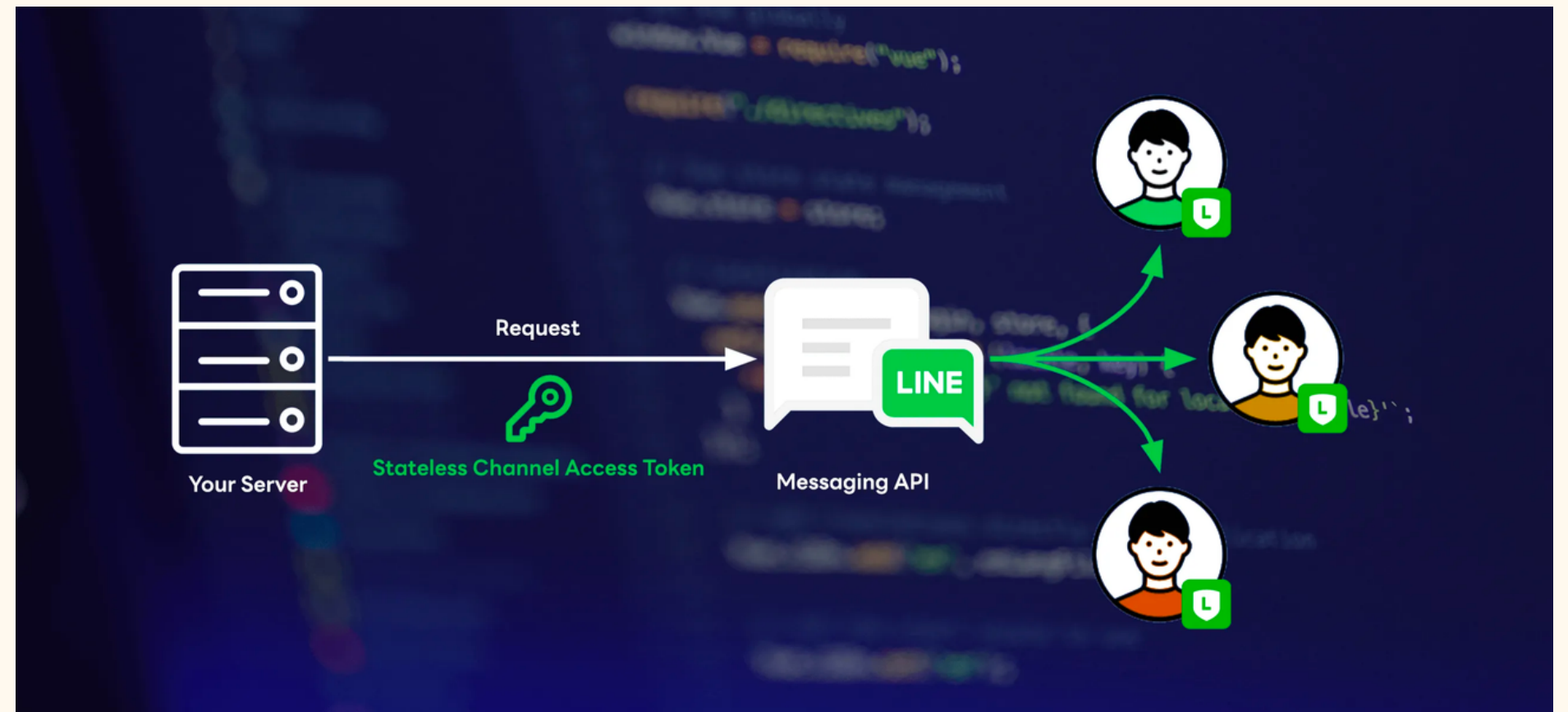
```
SQL_SEVEN_DAYS = """
with aweek(user_id,record_time,emotion) as (
select * from emotion_records
where record_time > %s - interval '7 days' and user_id=%s
),
cnt(emo_id,cnt) as (
select emotion, count(*)
from aweek
group by emotion
)
select emotion_name,cnt
from cnt
join emotion_names on emotion_id=emo_id
"""
```

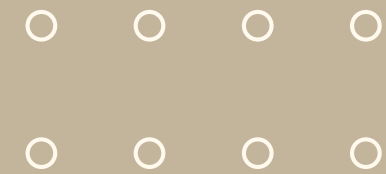
```
cur.execute(SQL_SEVEN_DAYS,(current_time,user_id,))
rows=cur.fetchall()
alldata = []
for row in rows:
    emo_name, cnt=row
    print(row)
    values = '%s: %s/7'%(emo_name,cnt)
    alldata.append(values)

if alldata:
    cnt_str = "\n- ".join(alldata)
    msg = "%s過去一週的心情\n- %s" % (user_name,cnt_str)
    line_bot_api.reply_message(event.reply_token, TextSendMessage(text=msg))
else:
    line_bot_api.reply_message(event.reply_token, TextSendMessage(text="您過去一週都沒有紀錄喔！"))
```


BACKEND

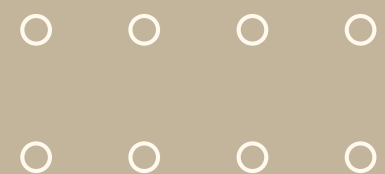
- RDS
- ngrok
 - 產生公開網址，讓 linebot 連接本機的 port 80
- Flask
 - Web 應用程式框架
- line-bot-sdk
 - channel access token
 - all kinds of templates
- psycopg2
 - connection to PostgreSQL database





DEMO

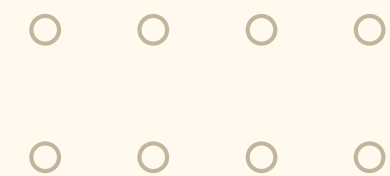
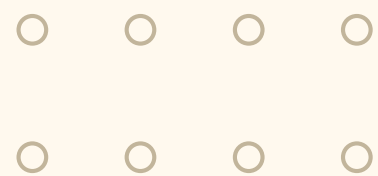
— ✨ ✨ ✨ —
- LINEBOT -

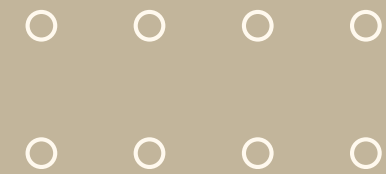


CONCLUSION

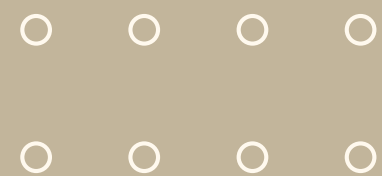
- 未來展望

- 將本服務部署到雲端上，建立更加穩定且安全的運算措施
- 擴充心情日記功能，如：
 - 更多樣化的情緒紀錄
 - 一小段文字日記
- 擴充數據統計功能，使統計數字視覺圖表化
- 融合網路爬蟲，提供更多心輔資源資訊





THANK YOU



DB Final Project Presentation | Group 16