‘SUMMARY FOR NEXTHIKE PROJECT 6’

##Project Summary: Analyzing Job Market Trends

#Task 1: Analyzing Job Title Keywords and Salaries

* Objective: Determine which keywords in job titles are associated with higher salaries.
* Approach:
  + Clean and preprocess job title and salary data.
  + Extract keywords from job titles using text analysis.
  + Use a regression model to find out how these keywords impact salaries.
  + Visualize the top keywords that correlate with higher salaries.

#Task 2: Identifying Emerging Job Categories

* Objective: Find out which job categories are becoming more popular over time.
* Approach:
  + Aggregate job postings by month and category.
  + Calculate the average monthly growth for each category.
  + Identify and visualize categories that are growing faster than average.

#Task 3: Predicting High-Demand Job Roles

* Objective: Forecast future demand for specific job roles.
* Approach:
  + Aggregate job postings by month for a specific role (e.g., Data Scientist).
  + Use a linear regression model to predict future postings for that role.
  + Visualize the trend and forecast for the selected job role.

#Task 4: Comparing Average Hourly Rates Across Countries

* Objective: Compare the average hourly rates for different countries.
* Approach:
  + Clean and preprocess hourly rate data by country.
  + Calculate average hourly rates for each country.
  + Use a choropleth map to visualize and compare hourly rates globally.

#Task 5: Creating a Job Recommendation Engine

* Objective: Recommend jobs to users based on their profile.
* Approach:
  + Build a recommendation system using job descriptions.
  + Calculate similarity between user profiles and job descriptions.
  + Provide job recommendations based on the highest similarity scores through a web API.

#Task 6: Tracking Changes in Job Market Dynamics

* Objective: Monitor how job market activity changes over time.
* Approach:
  + Aggregate job postings data by month.
  + Visualize the number of postings over time to understand market trends.

#Task 7: Investigating Remote Work Trends

* Objective: Analyze trends in remote job postings.
* Approach:
  + Identify and filter job postings that mention "remote".
  + Track the percentage of remote postings over time.
  + Visualize the trend to see how remote work has evolved.

#Task 8: Predicting Future Job Market Trends

* Objective: Forecast future job market activity.
* Approach:
  + Aggregate job postings data by month.
  + Use a regression model to predict future job postings for the next 12 months.
  + Visualize the historical data alongside future forecasts.

Each task involves different techniques and tools to understand various aspects of the job market, from keyword analysis and salary correlation to predicting future trends and tracking remote work dynamics.