Final Project General Info (Please Read Carefully)

The final projects for this course will encompass the material covered over the past weeks. The project consists of two main parts: theoretical and practical.

Theoretical Part: You will work with provided articles, videos, and documentaries to establish the background of your project.

Practical Part: You will conduct a basic data analysis using the tools learned in the course. Note that the data provided may not always be directly related to the main topic but will complement your story.

Project Guidelines:

- **Team Composition:** Each team can have up to 5 members.(no exception!)
- **Presentation:** Each team will prepare a presentation lasting no more than 25 minutes.
    - All team members must participate in the presentation.
    - All team members should be familiar with every step of the project and be ready to answer questions from the lecturer.
- **Structure:**
    - Begin with the theoretical background.
    - Follow with data visualization that ties into the story.
- **Coding Requirements:** Use Python exclusively for data analysis.
    - To ensure everyone understands the coding part, avoid complex syntax and varied libraries.
    - Permitted libraries: pandas, numpy, matplotlib, seaborn, plotly (geopandas as an alternative for creating maps).
    - For a bonus, you can create a web app using Dash.
- **Documentation:** Ensure your notebooks are well-documented and clean, using headers, markdowns, etc.
- **Presentation Tools:** You may use any tool for the presentation, including PowerPoint, Google Sheets, Canva, Jupyter Notebook, or your Dash app.

AI and work (in)justice

The rise of artificial intelligence (AI) has significantly impacted the outsourcing industry, with many companies increasingly integrating AI to enhance efficiency and reduce costs. By 2024, the global AI market is projected to reach $500 billion, with a substantial portion of this growth driven by its application in outsourcing. AI technologies, such as machine learning and robotic process automation, are transforming traditional outsourcing tasks, from customer service to data processing, by automating routine activities and enabling more complex analytical tasks.

However, this rapid adoption of AI in outsourcing raises concerns about job security and the quality of employment for human workers, as many fear that increased automation may lead to job displacement .

In response to these concerns, there has been a growing movement towards unionizing among employees in the outsourcing sector. Unions can play a crucial role in advocating for workers' rights, ensuring fair wages, and negotiating the impacts of AI on job security. Unionizing can provide a platform for workers to demand better working conditions and engage in discussions about the ethical use of AI in their industry. By fostering a collective voice, unions help to mitigate the potential negative consequences of AI adoption, such as job loss and exploitation, and ensure that the benefits of technological advancements are equitably distributed. This makes the analysis of AI's impact on outsourcing not just a technological issue, but a vital labor rights concern.

References:

Statista

McKinsey, "The future of work in America

1- Theoretical Part

Readings:

Resilience, Reworking, and Resistance Hidden Transcripts of the Gig Economy(given in the zip file)

https://time.com/6275995/chatgpt-facebook-african-workers-union/

https://time.com/6247678/openai-chatgpt-kenya-workers/
https://www.nbcnews.com/tech/innovation/openai-chatgpt-ai-jobs-contractors-talk-shadow-workforce-powers-rcna81892

*please try to cover other news stories

2- Data Analytics Part

You are given datasets as a zip file. You do not have to use all of the data. Please define at least 2 research/business questions. Complete all the steps of the EDA, data cleaning(if necessary)

After that make the proper visualizations to be able to answer your business/research questions.

-revenue data: in billion USD (US$), Key regions: Netherlands, United States, Japan, Germany, Italy

Submission:

The presentations are going to take place on 06.07.2024.
All the materials would be accessible in a public github repository and all the group members should be added as collaborators. There should be a short readme file explaining the project.

After the presentations on the same date the github repo link should be shared with the instructor on the google sheet(deadline 06.07.2024 23:59, Berlin time)

https://docs.google.com/spreadsheets/d/1C7vD3Dndix2I22zHotEw225Z9fwA75gXeTXOzh7ZfW4/edit?usp=sharing

Course Grading Criteria

Attendance: (Minimum 80% required)
- Students must attend a minimum of 80% of the lectures to fulfill this requirement.

Group Works: (30% of the final grade)
- Students are expected to actively participate in group works conducted during lectures. A total of 6 group works will be assigned, with the first one not counted towards the grade.

Final Project Presentation: (70% of the final grade)
- The final project presentation will contribute 80% to the final grade. Students are expected to deliver a comprehensive and well-prepared presentation on their assigned project topic.

Group Project Grading Criteria

Weight: 70% of the final grade

Structure and Organization (15 points)
- Does the presentation have a clear and coherent structure, including the names of the team members, a well-defined introduction, a thorough exploration of the topic, a concise conclusion, and appropriate use of references?
- Do notebooks, python files etc. have a clean and understandable level and structure?

Understanding of the Topic (20 points)

- To what extent does the group demonstrate a deep understanding of the chosen topic? Are key concepts explained clearly and comprehensively?

Coverage of Given Materials (15 points)

- Are the materials provided for the project adequately covered in the presentation?

Effective Use of Tools and Materials (10 points)

- Are the tools and materials utilized in the presentation effectively aligned with the topic? Do they enhance the understanding and engagement of the audience?

Innovation and Additional Research (10 points)

- Has the group conducted additional research or introduced innovative approaches, discussion points, or tools beyond the given materials? Are these contributions insightful and relevant?

Student's Personal Contribution (30 points)

- What is the individual student's contribution to the presentation? To what extent does each student actively participate in the research, preparation, and delivery of the presentation?
- Answering the question(s) the lecturer will direct during the presentation(related to all the topics which are covered during the sessions)

Bonus(10 points)

- Creating a web-app for your project. The instructions will be given in the upcoming session.