Project title: Apple Social Media Analytics for Strategic Branding

Project Overview:

You are hired as a Data Analyst by Apple, a global leader in consumer technology and innovation, known for iconic products like the iPhone, MacBook, iPad, Apple Watch, and AirPods.

Apple's brand communication is built around design excellence, privacy, sustainability, and premium user experience - actively showcased across Twitter (X), Instagram, YouTube, and LinkedIn.

Over the past year, Apple has expanded its digital marketing and content initiatives, featuring product launches (iPhone 16, Apple Watch Ultra 2, M3 MacBook Air), sustainability campaigns, and innovation highlights. The company invests heavily in storytelling-driven content to:

- Strengthen Apple's global brand identity

- Increase customer engagement and advocacy

- Drive awareness of new product innovations

- Maximize ROI from digital ad and influencer campaigns

However, Apple's marketing team faces challenges aligning content performance with business outcomes. They want clarity on:

- Which type of content and campaigns resonate most with Apple's audience?

- How ad spend and campaign engagement contribute to ROI?

- How launches (e.g., iPhone event) affect follower growth and engagement?

- What content strategy sustains customer loyalty and brand advocacy?

Project Objective:

Build a Social Media Intelligence Solution in Excel that consolidates Apple's raw data into actionable business insights.Your analysis should help Apple's digital marketing team make data-driven decisions for improving campaign performance, engagement, and platform strategy.

(If you're unfamiliar with domain-specific terms, feel free to take the help of Google or AI tools like ChatGPT or Gemini to understand them better and apply them effectively in your project.)

Dataset Description: [Apple Marketing data](#)

(Please refrain from using AI to perform the tasks mentioned below, as it will only provide generic solutions.)

1. **Posts Dataset**

   ○ Contains individual Apple social media posts across major platforms.
   ○ Used for analyzing content performance, engagement rates, and effectiveness of media types and hashtags.
   ○ Example fields:
      Post_ID, Platform, Date, Content_Type (Video, Image, Tweet, Carousel), Hashtags, Likes, Shares, Comments, Clicks, Impressions.

2. **Engagement Summary Dataset**

   ○ Aggregated weekly dataset tracking overall platform-level performance and advertising effectiveness.
   ○ Helps assess follower growth trends, ad spend efficiency, and audience engagement over time.
   ○ Example fields:
      Week_Start_Date, Platform, New_Followers, Unfollows, Total_Followers, Engagement_Rate, Ad_Spend.

3. **Campaign Metadata Dataset**

   ○ Contains information about Apple's marketing campaigns (e.g., iPhone Launch, Vision Pro Promotion, Privacy Awareness).

   ○ Used to connect campaign activities with engagement performance and ROI metrics.

   ○ Example fields:
      Campaign_Name, Start_Date, End_Date, Objective, Total_Spend, Impressions, Engagement_Uplift.

Tasks

Task 1: Data Preprocessing & Cleaning (12 Marks)

- Remove duplicate Tesla posts.
- Standardize date & platform names.
- Format numeric columns (Likes, Reach, Impressions, Ad Spend).
- Split hashtags (e.g., #ShotOniPhone, #iPhone16, #AppleEvent) into separate tags for analysis.

Task 2: Engagement Analysis (8 Marks)
Using the Posts Dataset:

- Calculate average engagement rate per platform:

  Engagement Rate = (Likes + Shares + Comments) / Impressions

- Identify Top 10 Tesla posts with highest engagement.
- Create a pivot table showing:
  - Total Likes, Shares, Comments by Content Type & Platform

  - Average Clicks per post by Hashtag

- Highlight top-performing hashtags such as #ShotOniPhone, #AppleEvent, #iPhone16Launch, #MacBookAir.

Task 3: Platform Analysis (12 Marks)

- Identify the platform with highest engagement (e.g., Twitter for announcements vs. YouTube for product demos).
- Compare follower growth rates across platforms.
- Visualize Engagement vs. Ad Spend per platform.
- Advise Apple's team: Should they focus on YouTube + Instagram (videos + visuals) or continue a multi-platform strategy?

Task 4: Hashtag & Content Strategy (16 Marks)

- Identify the most frequently used Apple hashtags.
- Compare average performance of posts containing each hashtag.

- Compare content performance:
  - Videos (launch events, ads, product demos)
  - Images (product close-ups, lifestyle shots)
  - Carousels (feature highlights, comparisons)
- Recommend which content type performs best on each platform(e.g., videos for YouTube, product images for Instagram).

Task 5: Campaign Effectiveness (16 Marks)

- Calculate:
  - Total & Average Impressions, Likes, Clicks per Campaign.
  - Measure engagement uplift during vs. before campaigns (e.g., iPhone 16 launch spike).

- Insights:
  - Which campaign had the highest ROI (engagement vs. spend)?
  - Which campaign drove the strongest follower growth?

Task 6: Follower Retention & Loyalty (16 Marks)

- Visualize weekly follower growth per platform (line chart).
- Identify the peak week of follower gain.
- Use moving averages to smooth growth trends.
- Correlate ad spend vs. follower growth using scatter plots.

Task 7: Video explanation: Expressing the finding and actionable insights (20 Marks)
(The summary should be in your own words and must NOT be generated using AI. Please don't write a script and read it aloud. Marks will be deducted for doing so.)

Summarize the key findings and provide concrete, data-backed recommendations for improving Apple social media marketing strategies, campaign planning, content performance, and platform-specific ROI.

Note:

- Please note that, if the student sets their own criteria, they need to clearly mention and explain it. Marks will be given according to the specified criteria if they are acceptable.
- Please do all the tasks in different workbooks for clarity and visibility.
- Plagiarism will result in a penalty, including possible project disqualification.
- The project will be evaluated based on the quality of analysis, depth of insights, and feasibility of recommendations.

Submission Guidelines:

- Save the worksheets in a folder and then convert it into a zipped (.zip) folder. **(Please note, the drivelink for the video created should also be added in the sheet itself.)**
- Upload the zipped folder on your respective dashboard.
- Failure to comply with submission guidelines will result in no grading/0 marks.

How to ZIP a PDF file:

- Put all of the worksheets you want to compress (or just one) into a new folder.
- Right click on that folder.
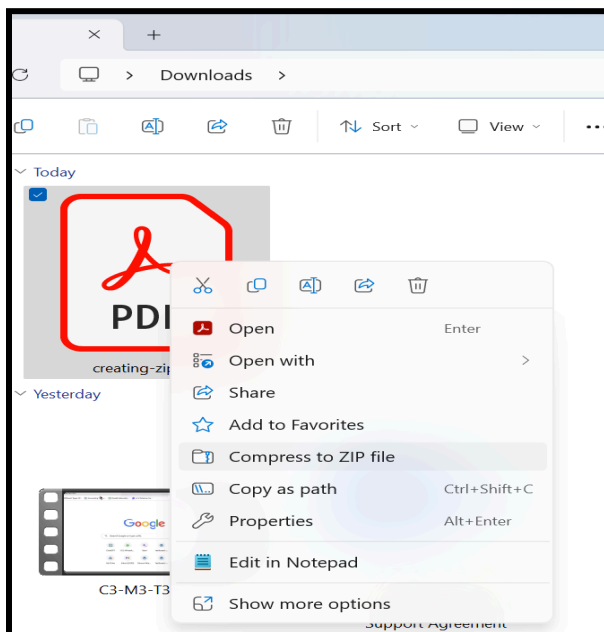
- Select the "Compress to ZIP file" option and then click "Compressed (Zipped) folder."
- A new .ZIP file will be created that contains your document(s).

In order to submit the projects please follow the following steps:

1. Click on " Your progress View details" after logging into your dashboard.
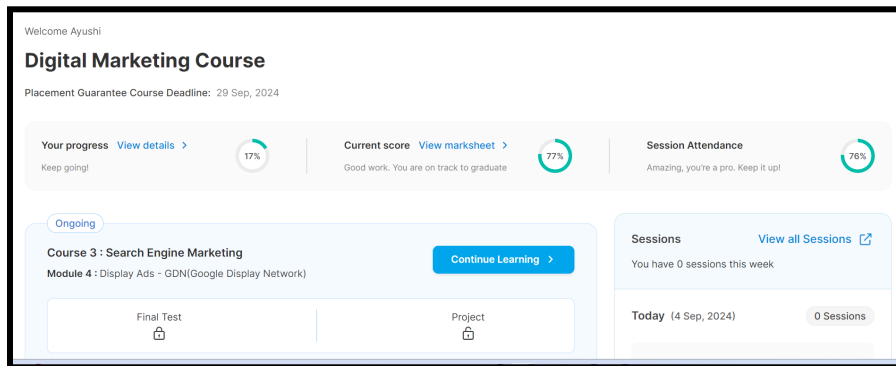
2. Next, click on the tab for the specific child course for which you want to download the problem statement. Then, scroll down to find the "**Course Project**" section.

3. Now, click on the three dots on the right-hand side of the "Course Project" tab to select **"Download Problem Statement."**
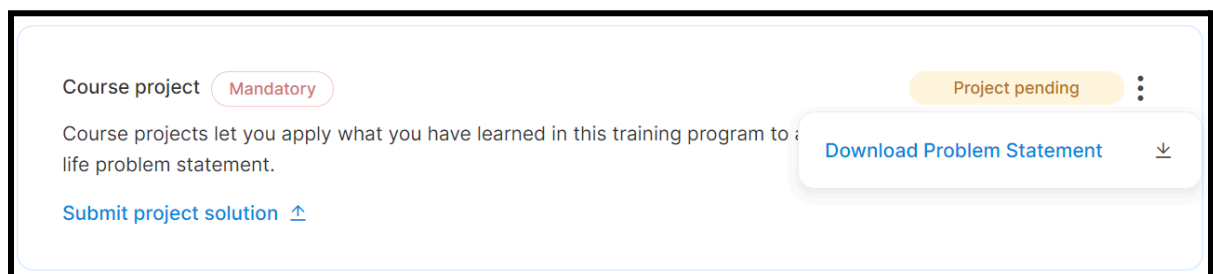
4. Please follow the guidelines (screenshot is shared below) provided in the project to ensure correct submissions. Then, click on "**Upload Project Solution**" to submit

your work.

Instructions for submission ✕

- ✅ Submit your original work
- ✅ Ensure that all the details are included and checked thoroughly.
- ✅ Upload only one .Zip/.rar file(<40 MB) containing all files if there are multiple files.

- ❌ Do not submit the solution file downloaded from the internet. A plagiarism check will be performed on your submissions.
- ❌ Do not present a part or all of another student's work as your own.

If you fail to follow the instructions above, your submission will be discarded and you will be debarred from the placement guarantee course without any further notice

📎 **Choose file** No file chosen