FDE Take-Home Exercise: Creative Automation for Social Campaigns

Please plan to spend **2-3 hours** on the assignment. **Complete deliverables described in the task and be prepared to share what you have created in a 30-minute live presentation with the interviewers.**

Required: Please record a quick demo (2-3 minutes) of the exercise working to help the interviewers set up/run the app locally for review. You will be asked to send the recording to your Talent Partner at least one day before your scheduled interview.

Scenario: Creative Automation for Scalable Social Ad Campaigns

Client: A global consumer goods company launching hundreds of localized social ad campaigns monthly.

Business Goals:

1. **Accelerate campaign velocity:** Rapidly ideate, produce, approve, and launch more campaigns per month to drive localized engagement and conversion.
2. **Ensure brand consistency:** Maintain global brand guidelines and voice across all markets and languages.
3. **Maximize relevance & personalization:** Adapt messaging, offers, and creative to resonate with local cultures, trends, and consumer preferences.
4. **Optimize marketing ROI:** Increase campaign efficiency by improving performance and top-line growth (CTR, conversions) versus cost and efficiencies (both time and spend).
5. **Gain actionable insights:** Track effectiveness at scale and learn what content/creative/localization drives the best business outcomes.

Pain Points:

1. **Manual content creation overload:** Creating and localizing variants for hundreds of campaigns per month is slow, expensive, and error-prone.
2. **Inconsistent quality & messaging:** Risk of off-brand or low-quality creative due to decentralized processes and agencies.
3. **Slow approval cycles:** Bottlenecks in review/approval with multiple stakeholders in each region and market.
4. **Difficulty analyzing performance at scale:** Siloed data and manual reporting hinder learning and optimization.
5. **Resource drain:** Skilled creative and marketing teams are overloaded with repetitive requests versus value-driving work.

Objective: Design a creative automation pipeline that enables the creative team to generate variations for campaign assets.

Data Sources

- **User inputs**: Campaign briefs and assets uploaded manually.
- **Storage:** Storage to save generated or transient assets (Can be Azure, AWS or Dropbox)
- **GenAI:** Best-fit APIs available for generating hero images, resized and localized variations.

Task: Build a Creative Automation Pipeline (Proof of Concept)

Goal:
Demonstrate a working proof-of-concept that automates creative asset generation for social ad campaigns using GenAI. The implementation should show your technical approach, problem-solving, and ability to integrate creative technologies.

Requirements (minimum)
- Accept a **campaign brief** (in JSON, YAML, or another reasonable format) with:
  - Product(s) – at least **two different products**
  - Target region/market
  - Target audience
  - Campaign message
- Accept **input assets** (can be in a local folder or mock storage) and reuse them when available.
- When assets are missing, generate new ones using a GenAI image model • Produce creatives for **at least three aspect ratios** (e.g., 1:1, 9:16, 16:9).
- Display **campaign message** on the final campaign posts (English at least, localized is a plus).
- Run **locally** (command-line tool or simple local app; your choice of language/framework).
- Save generated outputs to a folder, clearly organized by product and aspect ratio.
- Include basic documentation (README) explaining:
  - How to run it
  - Example input and output
  - Key design decisions
  - Any assumptions or limitations

Nice to Have (optional for bonus points)
- Brand compliance checks (e.g., presence of logo, use of brand colors)

- Simple legal content checks (e.g., flagging prohibited words)
- Logging or reporting of results

Please ensure that your solution reflects thoughtful design choices and demonstrates a clear understanding of the code. These aspects will be part of the evaluation.

Deliverables: Please share with us the following deliverables for the task described above:

- **A 2–3-minute video of the exercise working to help the interviewers set up/run the app locally for review.**
- **A public GitHub repository containing:**

  o The creative automation pipeline code

  o A comprehensive README file