1. Problem Statement and Target Audience
   1. **Problem Statement:** When assessing an article of clothing visually, it can be difficult to distinguish between time periods due to the ways trends continue across time, fashion recycling, and lack of documentation. This is especially true when considering looks that are less commonly seen in the general public, such as high fashion attire.
   2. **Target Audience:** We are designing for celebrity stylists. We aim to create a tool for people who need an efficient way to understand historical fashion references and aim to style using couture articles of clothing (the type of high fashion clothes often featured on runways).
2. Unique Value Proposition
   1. **Highlight Uniqueness:** When a stylist needs to reference a specific era of fashion quickly, they typically rely on catalogs, or historical archives. While this method provides a wealth of visual references, it can be time-consuming and overwhelming, especially when deadlines are tight or the theme is particularly niche. Our tool can expedite this process by streamlining how stylists access fashion references.
   2. **Demonstrate Value:** As a celebrity stylist, you may find yourself tasked with creating looks that not only suit your client but also reflect specific themes or time periods. This is especially important for high-profile events where the theme could be centered around a particular fashion era, such as 1920s Art Deco, 1960s Mod, or 1990s Grunge. The Met Gala theme in 2022, for example, was “In America: An Anthology of Fashion” which explored American designs from the 19th to the mid-late 20th century. As a stylist you want to be able to quickly reference influential pieces from that time period to suit the theme.   
        
      You also want to be sure that your client is satisfied with the reference point for your looks. If your client wants a couture fashion outfit, when you find clothing to style it needs to reflect designs from runways, and not necessarily the street fashions of the time.   
        
      Not only does understanding the decade's aesthetic allow you to create looks that authentically reference the time period, it helps you to balance historical references with contemporary fashion. As a stylist, this is a key skillset that keeps your client from looking dated while making a recognizable reference to a decade.
3. Scalability and Efficiency
   1. **Technical Scalability:** Since our application uses Docker containers to run the model and google cloud platform to store the data, we will be able to deploy our application.
   2. **Performance Optimization:**
   3. **Infrastructure Considerations:** We are using Docker containers, Google Cloud Platform, and Google Colab to complete our project.
4. Future Development and Growth Potential
   1. **Next Steps:** Our next step is to deploy our web app using the credits we have been afforded by the class.
   2. **Market Growth:**  Our model could be expanded to describe the features of the images it categorizes as similar and present that to the user.

### Be Prepared to Answer Questions On

* **Technical Architecture and Infrastructure Choices:** Why did you choose specific tools and platforms? How does your architecture support scalability and reliability?
  + We chose **Docker** for containerization to ensure consistency across different environments and simplify deployment. **Google Cloud Platform** was selected for scalable data storage and computing resources, and **Google Colab** provided a collaborative space for model training.
  + This architecture supports **scalability** by allowing us to deploy across different systems easily and handle large-scale data with cloud resources. It ensures **reliability** through the use of containerized components, minimizing issues during deployment.
  + Add DVC
* **Data Management and Security:** How do you handle data versioning and storage? What measures are in place to ensure data security and compliance (if applies)?
  + We handle **data versioning** by storing each dataset version in Google Cloud Storage with unique identifiers, ensuring traceability and reproducibility.
  + Add DVC
  + Add Scraping for compliance issues be brief don’t worry too much
* **Model Performance, Optimization, and Maintenance:** What are the performance metrics of your model? How will you maintain and update the model over time?
  + **Performance Metrics**: The model currently achieves over 90% accuracy, which is promising given the dataset size and number of categories. We are optimizing it with techniques like **data augmentation**, **SMOTE** to address class imbalance, and **hyperparameter tuning** to further improve performance.
  + **Maintenance**: The model will be continuously updated with new data and re-trained as necessary. We plan to monitor performance metrics, refine the model regularly, and incorporate feedback from real-world use cases to ensure it remains up-to-date and effective.
    - Data monitoring, we should monitor the distribution of the data to see if it changes (mention this! Maybe not implement)
* **Market Opportunity:** What is the size of the market you are targeting? How does your solution meet a demand or gap in the market?
  + **Market Size**: We are targeting the **celebrity stylist** market, which is niche but highly influential, especially for high-profile events like fashion shows and galas. This also expands to luxury fashion designers and historical fashion enthusiasts.
  + Our solution addresses the **demand** for a fast and accurate way to reference historical fashion trends, filling a gap in the market where stylists currently rely on time-consuming methods like manual archive searches.
    - Highlight that though this small market, it is highly profitable because of the value of celebrity styling financially.

**References**

<https://www.metmuseum.org/press/news/2022/advance-details-of-in-america-an-anthology-of-fashion#:~:text=Max%20Hollein%2C%20the%20Marina%20Kellen,as%20significant%20as%20the%20whole.%E2%80%9D>