**Amazon Smbhav Hackathon 2024: Ideation Phase Submission Template**

**1. Team Details**

**Team Name**: Team Advaya

**Team Members**

1. Muskan Kumari
2. Alisha Khatoon
3. Tanisha Jain
4. Shreya Kumari

**2. Theme Details**

**Theme Name:**

**Theme 1: Social Media Content Analysis for E-commerce Listing Automation**

**Theme Benefits:**

This theme bridges social media and e-commerce, enabling sellers to convert social content into structured product listings effortlessly. By automating listings from social posts, sellers benefit from:

* **Efficient Content Transformation:** Turns unstructured social media content into ready-to-publish e-commerce listings, reducing manual work.
* **Enhanced Customer Experience:** Provides secure transactions, order tracking, and returns, fostering customer trust.
* **Broader Reach and Visibility:** Accesses e-commerce platform audiences, expanding exposure beyond social media.
* **Scalability and Efficiency:** Streamlines listing creation, allowing sellers to scale their businesses more effectively.

This theme enhances seller reach, improves buyer experience, and makes social-to-e-commerce conversion seamless and sustainable.

**3. Idea and Approach Details**

**Idea: "Social2Store: Automated Social Media to E-Commerce Listing Converter"**

**Solution Overview:**

Our solution is a tool that automatically converts social media posts into ready-to-use product listings for e-commerce platforms like Amazon. The main idea is to help sellers take information from their social media posts and turn it into well-organized listings, saving time and making it easier to sell products online.

* **Extracting Product Information:** It scans posts for key details (product name, features, price) from images, captions, and videos.
* **Creating Amazon-Ready Listings:** The tool organizes the information into Amazon-compatible formats with titles, descriptions, and feature lists for high visibility.
* **Editing and Previewing:** Sellers can review and customize the listing before it goes live.
* **Publishing and Managing Listings:** The tool publishes listings directly to Amazon and keeps them updated as needed.

This solution saves sellers time and simplifies the selling process, making social-to-e-commerce sales easier and more effective.

**Technical Stack:**

* **Frontend:** ReactJS
* **Backend:** Node.js with Express
* **Database:** MongoDB
* **Machine Learning/NLP:** Hugging Face Transformers for text, OpenCV or Amazon Recognition for images, Amazon Transcribe for audio
* **Cloud Services:** AWS Lambda, Amazon S3 for storage and scalability
* **E-commerce Integration:** Amazon MWS API for direct listing uploads

**Decision Rationale:**

**Assumptions:**

* Social media content is often unstructured, and extracting data from text, images, and videos requires a combination of NLP, computer vision, and multimedia processing.
* Users will benefit from an end-to-end solution, from extraction to listing creation, which can be fine-tuned before publishing.

**Constraints:**

* Reliance on multimedia analysis may increase processing time.
* Need for Amazon MWS compliance to ensure listing accuracy and compatibility.

**Key Decisions:**

* Using a GenAI solution with NLP and computer vision capabilities to provide accurate data extraction.
* Choosing AWS services to manage processing loads and ensure scalability, reliability, and ease of integration with Amazon.

**Innovation Highlights:**

* **Automated Multimedia Analysis:** By combining NLP, computer vision, and video-to-text technologies, this solution stands out by automating the extraction of multimedia data—transforming social media engagement into actionable e-commerce listings.
* **End-to-End Integration:** This solution not only extracts data but also formats and publishes it to Amazon, providing a comprehensive, ready-to-use solution for sellers.
* **SEO Optimization for E-commerce:** LLM-generated descriptions are optimized for searchability on Amazon, maximizing product visibility and engagement.

**Feasibility and User-Friendliness:**

* **Feasibility:** The solution leverages existing machine learning models, making it realistic to develop with available technology. AWS services enable scalable processing of multimedia data, ensuring the solution is resilient and can grow with user demand.
* **User-Friendliness:** A simple, guided interface allows users to review and adjust product listings before publishing, making the tool intuitive. Integration with social media and Amazon means users can adopt the solution without major disruptions to their existing workflow.

**Success Metrics:**

* **User Satisfaction:** Metrics such as user engagement with the tool, frequency of edits on auto-generated listings, and positive feedback on usability.
* **Listing Performance:** Success can be measured by tracking product views, conversions, and average listing performance on Amazon (e.g., click-through rate, ranking).
* **Operational Efficiency:** Time saved on manual listing creation and improvements in listing accuracy.
* **Scalability and Reliability:** Monitor processing speed, uptime, and the capacity to handle an increasing number of listings over time.

1. **Methodology/Architecture Diagram**

