**1. Project Title**

**MindfulFeed AI – Classifying YouTube Content as Mindful or Mindless using Free Local AI**

**2. Objective**

To develop a lightweight, AI-powered application that promotes digital well-being by helping users reflect on their content consumption. The system identifies whether YouTube content is “Mindful” (educational, focus-driven) or “Mindless” (distracting, low value), using a free, offline sentiment classification model.

**3. Tools & Technologies Used**

| **Tool/Library** | **Purpose** |
| --- | --- |
| **Google Colab** | Notebook platform for implementation |
| **Python** | Core programming language |
| **Transformers (HuggingFace)** | Local text classification (DistilBERT) |
| **Google API Client** | YouTube video search |
| **Pandas** | Data storage and logging |
| **Plotly** | Interactive visualizations (charts) |
| **Torch** | Backend for DistilBERT model |

**4. Project Workflow**

**✅ Step-by-step Overview:**

1. **YouTube Search Input:**  
   User provides a search query (e.g., "focus tips", "deep work")
2. **Video Retrieval via YouTube API:**  
   Fetches video title and description using YouTube Data API
3. **AI-Based Content Classification:**  
   Uses a free DistilBERT-based model to classify each video as:
   * **Mindful** (if text is positive, useful)
   * **Mindless** (if it's viral, shallow, or distracting)
4. **Logging Results:**  
   Stores video titles, classifications, and timestamps in mindfulfeed\_log.csv
5. **Analytics & Dashboard:**
   * 🥧 Pie Chart: Distribution of Mindful vs Mindless content
   * 📊 Bar Graph: Daily usage trends
6. **Bonus Features:**
   * ⚠️ Daily mindless video warning
   * 🎯 Mindful content goal tracker
   * 📁 Mindful video library (optional)

**5. Sample Output**

**✅ Classification Example:**

🎬 Title: Deep Work Routine That Changed My Life

📝 Description: How to focus and reduce distractions using proven techniques.

🧠 Classified as: Mindful

**📈 Chart Previews:**

* Pie Chart → Mindful: 80%, Mindless: 20%
* Daily Bar Chart → Showing video types consumed per day

*(Screenshots inserted in original notebook / demo attached)*

**6. Results & Conclusion**

* The project successfully demonstrates how AI can be used for **digital well-being**.
* With **zero paid APIs**, it delivers **real YouTube integration**, **live classification**, and **trend visualization**.
* The system is lightweight, impactful, and future-ready — applicable in personal productivity tools and education.

**7. Future Scope**

* Add user authentication & personal watch history (via OAuth)
* Build a Chrome Extension to detect scrolling patterns
* Fine-tune a custom classifier trained on "mindful/mindless" YouTube labels
* Deploy as a Streamlit app with weekly wellness reports

**✅ Attached Files:**

* MindfulFeedAI\_Final.ipynb
* mindfulfeed\_log.csv
* mindfulfeed\_charts.png (optional screenshots)
* MindfulFeedAI\_MiniProject\_Report.pdf *(this file)*

Let me know if you'd like me to generate this as a **ready-to-download PDF** or help with adding screenshots before finalizing it!