Springboard (Milestone 3&4) - Readme

- **Overview**:
  This project is designed to extract, analyze, and visualize information from various document types, including Salary Slips, Profit and Loss Statements, and Checks. It utilizes Optical Character Recognition (OCR) technology through PaddleOCR and natural language processing via the Cohere API to interpret the text from images. The results are then visualized using Matplotlib and can be fetched from Cloudinary.

- **Features**:
  - **OCR Capabilities**: Extracts text from images using PaddleOCR.
  - **Data Analysis**: Processes extracted text to identify specific fields based on document types.
  - **Visualization**: Generates visual representations (Bar Plots and Pie Charts) of the extracted data.
  - **Image Handling**: Supports image uploads and fetching images from Cloudinary.
  - **User Interface**: Built using Gradio for an interactive user experience.

- **Pre-requisites:**
  - Python 3.7 or higher
- **Required libraries:**
  - PaddleOCR
  - Pillow
  - NumPy
  - OpenCV
  - Pandas
  - Matplotlib
  - Cohere
  - Gradio
  - Cloudinary
  - Requests

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- **Setup**:
    1. Clone the repository to your local machine.
    2. Navigate to the project directory.
    3. Install the required libraries using pip:

```
pip install paddleocr Pillow numpy opencv-python pandas matplotlib cohere gradio cloudinary requests
```

    4. Replace the placeholder API keys and Cloudinary configuration in the code with your actual credentials.

- **Usage**
    - Run the application by executing the main script.
    - Select the document type from the radio buttons.
    - Choose the visualization type (Bar Plot or Pie Chart).
    - Either upload images directly or fetch random images from Cloudinary.
    - Click the appropriate button to process the images and visualize the results.
    - View the extracted information and visualizations in the UI.