**DESIGN OF IMAGE RECOGNITION**

1. **Problem Definition:**

Clearly define the problem you want to address. Specify the types of images, the emotions and moods to be recognized, and the context in which this recognition is required.

1. **Research and Data Gathering:**

Research existing sentiment analysis tools and image recognition methods. Gather labelled datasets that include both images and corresponding sentiment annotations.

1. **Customized Sentiment Analysis Model:**

Train or fine-tune a sentiment analysis model that can extract emotional and mood information from textual descriptions. This model can be built using Natural Language Processing (NLP) techniques and trained on relevant data.

1. **Custom Visual Recognition Model:**

Train a custom model using IBM Visual Recognition that is specialized in recognizing objects, scenes, or specific image characteristics related to the problem domain.

1. **Integration of Visual and Sentiment Analysis:**

Develop an integration layer that connects the image recognition model with the sentiment analysis model. This layer should take the image output from Visual Recognition and generate textual descriptions of the image's emotional content.

1. **Data Pre-processing:**

Pre-process the data to ensure compatibility between the image and textual analysis. This might involve text-image alignment and data cleaning.

1. **User Interface Design:**

Create a user-friendly interface or API that allows users to submit images for analysis and receive captions that express the emotions and moods depicted in the images.

1. **Scalability and Performance Optimization:**

Ensure the system can handle a large number of requests and provide real-time responses. Consider using cloud-based solutions to scale as needed.

1. **Feedback Loop:**

Implement a feedback mechanism for users to rate the accuracy of the generated captions. Use this feedback to improve the sentiment analysis and image recognition models over time.

1. **Security and Privacy:**

Prioritize data security and privacy, especially when handling images that may contain sensitive content. Implement encryption and access controls.

1. **Testing and Validation:**

Thoroughly test the system with a diverse set of images and validate the accuracy of the sentiment analysis and image recognition components.

1. **Ethical Considerations:**

Ensure the sentiment analysis model and image recognition system there to ethical guidelines and do not perpetuate biases or stereotypes.

1. **Continuous Learning:**

Implement a system for continuous learning. Regularly update and retrain the sentiment analysis and image recognition models with new data to adapt to evolving trends.

1. **Documentation and Training:**

Provide documentation and training for users and staff on how to effectively use the system and understand the generated captions.

1. **Feedback from Users:**

Continuously gather feedback from users and iterate on the system based on their needs and suggestions.