**Emotion Classifier**

**Task:**

Your task is to develop a machine learning model that can classify the emotion(s) present in the provided images accurately. The model should be trained on the training set and evaluated on the test set. You are free to choose any machine learning algorithm or combination of algorithms that you believe will achieve the best performance for this task. You should also consider preprocessing steps, feature extraction, and hyperparameter tuning to optimize your model.

**Approach:**

To classify the emotions, present in images, we can follow the following approach:

* **Preprocessing Steps**:
  + Load the image dataset and corresponding labels.
  + Resize the images to a fixed size to ensure uniformity.
* **Feature Extraction Techniques**:
  + One common approach for image classification is to use Convolutional Neural Networks (CNNs). CNNs are capable of automatically learning relevant features from the images.
  + We can use a pre-trained CNN model (such as VGG16, ResNet, or Inception) as a feature extractor. By removing the last classification layer, we can obtain a fixed-length feature vector for each image.
* **Model Training and Evaluation:**
  + Split the dataset into training and test sets.
  + Train the chosen model(s) on the training set using the extracted features.
  + Evaluate the trained model on the test set using appropriate metrics such as accuracy, F1-score, and confusion matrix.