Random Forest Problem Set:

* **Tasks to perform:**
  1. **Exploratory Data Analysis (EDA):** Analyze feature distributions, correlations, and identify key factors influencing placements.
  2. **Data Preprocessing:** Handle missing values, encode categorical variables, normalize/scale features if needed.
  3. **Train-Test Split:** Split the dataset into training and testing sets.
  4. **Train Random Forest Model:** Fit a random forest classifier to the training data.
  5. **Model Evaluation:** Evaluate accuracy, precision, recall, F1-score on the test set.
  6. **Feature Importance:** Identify and interpret the feature importance scores from the random forest.
  7. **Hyperparameter Tuning:** Experiment with number of trees, maximum depth, and other hyperparameters to improve performance.
  8. **Compare with Baseline Models:** Optionally compare the random forest with other classifiers like logistic regression or decision trees.