Introduction to Machine Learning Homework

For this homework assignment, you will be setting up your machine learning environment and writing your first machine learning code in Python.

1. Install Python and the required libraries
   * Install the latest version of Python from the official website (<https://www.python.org/>)
   * Install the NumPy, pandas, matplotlib, and scikit-learn libraries using pip:
     + Open a terminal or command prompt and type: **pip install numpy pandas matplotlib scikit-learn**
   * Install a code editor or IDE (e.g. PyCharm, Jupyter Notebook) to write and run your Python code
2. Write a simple machine learning program
   * Use the scikit-learn library to train a k-nearest neighbors (KNN) classifier on the Iris dataset
   * Load the Iris dataset using scikit-learn's **load\_iris** function
   * Split the data into training and testing sets using scikit-learn's **train\_test\_split** function
   * Train the KNN classifier on the training data using scikit-learn's **fit** function
   * Evaluate the classifier's performance on the testing data using scikit-learn's **score** function
   * Print the accuracy of the classifier
3. Submit your code and a brief report
   * Include a brief summary of what you did in this assignment
   * Attach your Python code as a .py file or a link to a Jupyter Notebook

Resources:

* scikit-learn documentation: <https://scikit-learn.org/stable/documentation.html>
* Iris dataset: <https://scikit-learn.org/stable/auto_examples/datasets/plot_iris_dataset.html>

Submission deadline: one week from the date of this assignment.