This is a technical test to assess machine learning skills. You must complete this test within three days of receiving it.

The data consists of two CSV files: `trainingData.csv` and `trainingLabel.csv`. Which can be downloaded from this folder, `trainingData.csv` has 15,000 rows, each with four columns:

- Session ID
- Start time
- End time
- Product IDs viewed in the session separated by semicolons. Each product ID consists of four parts: three hierarchical category IDs followed by the specific product ID.

`trainingLabel.csv` has 15,000 rows specifying the gender (male or female) of the user for each corresponding row in `trainingData.csv`.

Q1: Given a transaction row from the training set, propose 3 different machine learning algorithms that could be used to predict the gender of the customer. For each algorithm, explain your selection and discuss the pros and cons of using that approach.

Q2: Implement your selected algorithm (the most preferable one) in a programming language you are familiar with. Submit the code. Describe the code and explain how to apply it to the data set.

The accuracy score is calculated as:

$$\text{Score} = \left(\frac{\text{Male}_{\text{correct}}}{\text{Male}_{\text{total}}} + \frac{\text{Female}_{\text{correct}}}{\text{Female}_{\text{total}}} \right) / 2$$

Where $\text{Male}_{\text{correct}}$ is the number of correct predictions for males, $\text{Male}_{\text{total}}$ is the total male cases, and similarly for females.