Three practice questions related to logistic regression:

1. Question 1:

   You are given a dataset containing information about customers of an e-commerce website, including features such as age, income, and whether they made a purchase (1 for purchased, 0 for not purchased). Using logistic regression, predict the probability of a new customer making a purchase based on their age and income.

2. Question 2:

   Suppose you have a dataset with information about students, including their study hours, attendance, and exam outcomes (pass or fail). Using logistic regression, build a model to predict whether a student will pass or fail an exam based on their study hours and attendance.

3. Question 3:

   You are provided with a dataset containing information about patients, including their age, gender, and whether they have a specific medical condition (1 for having the condition, 0 for not having the condition). Using logistic regression, develop a model to predict the likelihood of a new patient having the medical condition based on their age and gender.