



PROGRAMMING 1 - WEEK 2

Skills

Exercise – Exam pass

A student takes two exams and receives a score out of 100 for each exam.

- The student passes if they score at least 50 out of 100 on each exam.
- The student is deliberated if the lowest score is at least 45 out of 100 and the sum of the scores of the two exams is at least 100 out of 200, or when the sum of the scores of the two exams is at least 120 out of 200 even if one of the scores is below 45 but not lower than 40
- In all other cases, the student does not pass.

Write a function `examPass(result1,result2)` that returns whether a student has passed or is deliberated (True) or not (False).



Exercise – Security code

The system asks the user to input three separate digits (ranging from 0 to 9) as an access code. The access code is valid if the following conditions are met:

- The first digit must be greater than the second digit.
- The third digit must be an even number.
- The first digit must be different from the third digit.

Write a function `securityCode(code)` that takes `code` as an integer and returns whether the given code is valid (True) or invalid (False).



Exercise – Bicycles (1)

Write a function `rentBicycles` that calculates the total cost of renting bicycles.

The function should accept four parameters:

- `num_bikes`: the number of bicycles rented (a positive integer).
- `rental_days`: the number of days the bicycles are rented (a positive integer).
- `is_member`: a boolean indicating whether the customer is a member of the bicycle rental service (True or False).
- `insurance`: a boolean indicating whether the customer wants to purchase insurance for the bicycles (True or False).

Exercise – Bicycles (2)

Specifications:

- The base price per bicycle per day is €5.00.
- Members of the bicycle rental service receive a 15% discount on the base price.
- The insurance costs an additional €2.00 per bicycle per day.

The delivery costs are as follows:

- There are no delivery costs for renting 1 bicycle.
- The delivery cost is €3.00 for renting 2 bicycles.
- The delivery cost is €6.00 for renting 3 or more bicycles.

