Software Testing - fundamentals

Individual Workshop Session

Exercises: Software Testing - fundamentals

1. Create Calculator class and implement operations: addition, subtraction, multiplication, division. Then create CalculatorTest class with tests above operations.

2. Change Calculator class from task one to use the AssertJ assertion.

3. Implement the method in the ArrayExample class using the TDD approach:

   public static String[] removeDuplicates(String[] array)

   Method should return new array without duplicates.

Exercises: Software Testing - fundamentals

4. Using the TDD approach, write a method that validates the email address pass in the parameter.

5. For the Account class containing the fields: balance, account number, name of the owner, create a method and write its unit tests, which simulates making a transfer between two bank accounts. In tests, check the correctness of the account number (26 digits), balance for the account after sending / receiving the transfer, whether all of the above fields in the transfer have been completed, whether the amount of the outgoing transfer is less than or equal to the value of funds on the account.

Exercises: Software Testing - fundamentals

6. Write a program that will represent the shopping cart in the online bookstore. Create a Book class that has a title, author and price. Add a Basket class that stores a list of books. When using TDD, add a method:

    a. get all books from shopping
    b. add book to shopping cart
    c. clear a shopping cart
    d. sum of prices for all books in the shopping cart

Exercises: Software Testing - fundamentals

7. Write a program that imitates file operations. Then write check tests: file creation, write, read, file cleanup. Use lifecycle methods.