

Topics: Switch, Loops, Arrays

Remarks:

- If/else is ideal if you have only 2 options, like if you are 18+, you can enter, else you are not allowed. Whenever we have more than 2 options, we use switch.
- For loops are ideal if we know exactly how many iterations (Durchgänge) we are going to do. Whenever we don't know a priori (im Voraus) how many iterations we have to do, we use while loops.

1. Write a calculator with the following features: Add, Subtract, Multiply, Divide:

- Ask user what operation he wants to use (Add, Subtract etc.)
- Ask the user for two numbers
- Output the result

2. Write a deposit/withdraw program:

- Define the saldo of the user
- Ask the user if he wants to deposit or withdraw
- Ask for the amount of money
- Output the new saldo (When the user withdraws money, check whether he has enough money on his saldo to do so)

3. Write a program that:

- Defines an array with 5 names
- Asks the user for a number between 1-5 (Example: 4)
- Outputs the name at that position (Example: 4th name)

4. Write a program that:

- Defines an array of length 5
- Asks the user 5 times to input a name (Example: Hagel Milo Tamara Carina Benno)
- Outputs the names in reversed order (Example: Benno Carina Tamara Milo Hagel)

5. Write a program that:

- Defines an array with 5 numbers
- Outputs the highest number among them

6. Write the same program as in 5, but this time it outputs only every second number instead of the highest one (Example: Input: 5,7,3,4,9. Output: 5,3,9)

7*. Write the same program as in 5, but this time it outputs all the numbers in descending order. (Example: Input: 5,7,3,4,9. Output: 9,7,5,4,3)

8. Write the same program as in 5, but this time it outputs the average of all the numbers.

9. Write a program that:

- Counts from 1 to 100

10. Write a program that:

- Asks the user for names until the user inputs Quit

11. Write a program that:

- Defines a number between 1-100
- Asks the user for a number until he inputs the right number
- At each try of the user, it tells the user whether his number is lower or higher than the program's one (Example: Number 34, User input: 20, Output: Your number is too low, User input: 40, Output: Your number is too high, etc until User input: 34, Output: Great!)