

CENG 113 – Programming Basics

Lab 6

Repetition Structures

Password Checker

Write a Python program that asks the user for a password as soon as he/she enters the right password.

Display “Wrong” when password and input don’t match.

Display the first letter of the password when input is “help”.

Display “Welcome” and exit when input and password match.

Hint: Define a static password “abc123” at the beginning.

Example:

```
Enter password: xyz111
Wrong
Enter password: help
a
Enter password: abc123
Welcome
```

Fibonacci

Write a Python program that asks the user how many Fibonacci numbers to generate and then displays them.

Hints:

- The Fibonacci sequence is a sequence of numbers where **any number is the sum of the previous two numbers**.
- The sequence looks like this:
1, 1, 2, 3, 5, 8, 13, 21, ...

Max Revenue

Assume that matrix **M** given below consists of the sales history of a market in the last 5 days. **For example**, in Thursday two items are sold by \$4 and \$2. Write a Python program that finds and displays the name and revenue for the day with highest total revenue.

```
M = [[1, 3, 5, 4, 2],  
      [3, 2, 4, 2, 1]]
```

```
days = ['Monday', 'Tuesday', 'Wednesday',  
         'Thursday', 'Friday']
```

Sum of primes

Write a Python program which calculates sum of the prime numbers in a given matrix.

```
M = [[7, 60, 43], [55, 25, 2]]
```

Hint: There will be 3 nested loops. One of them is to check whether a number is prime or not.

Sublist

Write a Python program that checks if `list1` is a sublist of `list2` and displays the result.

```
list1 = [2,4]
```

```
list2 = [1,2,3,5,6,8,9]
```