# Exercises: Python Intro

Problems for exercises and homework for the [“Python Fundamentals” course @ SoftUni](https://softuni.bg/opencourses/python-fundamentals-course). Submit your solutions in the SoftUni judge system at [https://judge.softuni.bg/Contests/917](%20https://judge.softuni.bg/Contests/917).

## Hello World

Write a Python program that prints out a simple “**Hello World!**” to get acquainted with writing Python code.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| *(no input)* | Hello World! |

print("Hello World!")

## Person Info

Write a Python program, which reads a person’s **name**, **age**, **town** and **salary**, and prints it back to the **console** with the **following format**:

“{name} is {age} years old, is from {town} and makes ${salary}”

*Note: Leave floating point numbers* ***unformatted****.*

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| Gosho  20  Sofia  530 | Gosho is 20 years old, is from Sofia and makes $530.0 |

|  |  |
| --- | --- |
| **Input** | **Output** |
| Pesho  22  Plovdiv  450 | Pesho is 22 years old, is from Plovdiv and makes $450.0 |

### Hints

* To format a string, you can either use the .format() **function**, or a **template string** (f'format')

name = input()  
age = int(input())  
town = input()  
salary = float(input())  
  
print(f"{name} is {age} years old, is from {town} and makes ${salary}")

## Extended Person Info

Write a Python program, which reads information about a **person** in the **same format** as the previous problem, and prints it back to the **console** with the **following format**:

|  |
| --- |
| Name: {name}  Age: {age}  Town: {town}  Salary: ${salary}  Age range: {ageRange}  Salary range: {salaryRange} |

Format the **salary** to the **2nd decimal point**.

The **age range** is as follows:

* If the person is **less than 18** years old, they are a “**teen**”
* If the person is **less than 70** years old, they are an “**adult**”
* Otherwise, the person is an “**elder**”

The **salary range** is as follows:

* If the salary is **less than $500**, it is “**low**”
* If the salary is **less than $2000**, it is “**medium**”
* Otherwise, the salary is “**high**”

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| Gosho  20  Sofia  530 | Name: Gosho  Age: 20  Town: Sofia  Salary: $530.00  Age range: adult  Salary range: medium |

|  |  |
| --- | --- |
| **Input** | **Output** |
| Pesho  17  Plovdiv  4500 | Name: Pesho  Age: 17  Town: Plovdiv  Salary: $4500.00  Age range: teen  Salary range: high |

|  |  |
| --- | --- |
| **Input** | **Output** |
| Ivan  77  Montana  250 | Name: Ivan  Age: 77  Town: Montana  Salary: $250.00  Age range: elder  Salary range: low |

name = input()  
age = int(input())  
town = input()  
salary = float(input())  
age\_range = ""  
salary\_range = ""  
  
if age < 18:  
 age\_range = "teen"  
elif age < 70:  
 age\_range = "adult"  
else:  
 age\_range = "elder"  
  
if salary < 500:  
 salary\_range = "low"  
elif salary < 2000:  
 salary\_range = "medium"  
else:  
 salary\_range = "high"  
  
print(f"Name: {name}")  
print(f"Age: {age}")  
print(f"Town: {town}")  
print(f"Salary: ${salary:.2f}")  
print(f"Age range: {age\_range}")  
print(f"Salary range: {salary\_range}")

## Numbers from 1 to 10

Write a simple for **loop**, with which to print all the **numbers** **from** **1 to 10 on separate lines**.

Use the range() function.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| *(no input)* | 1  2  3  4  5  6  7  8  9  10 |

### Hints

* The range() function generates an **exclusive range**, so using **10** as an **end value** probably won’t work.

for i in range(1,11):  
 print(i)

## Numbers with Step

Write a python program, which receives a **start number**, an **end number** and a **step**. Write a simple for **loop**, which prints all the numbers from the **start number** tothe **end number**, using the **specified step**.Print the numbers on **separate lines**.

Use the range() function.

### Examples

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |
| 1  10  1 | 1  2  3  4  5  6  7  8  9 |  | -20  20  2 | -20  -18  -16  -14  -12  -10  -8  -6  -4  -2  0  2  4  6  8  10  12  14  16  18 |

start = int(input())  
end = int(input())  
step = int(input())  
  
for i in range(start, end, step):  
 print(i)