



CODE CHALLENGE
CHAMPIONSHIP

PYTHON MISSION 2

CODE CHALLENGE CHAMPIONSHIP

JUNIOR CATEGORY

20
24

Aqua Park Tickets Calculator

Overview:

An Aqua Park named “**Setosa Park**” is intending to make discounts on their tickets for all visitors on their website from different nationalities to attract more visitors as the Aqua Park management believes that these offers will help to increase their profit accordingly.

Mission:

1- Make a function named “**calculate_ticket**” that has two parameters. The first is “**nationality**” which can be either 1 or 2 denoting Egyptians or Tourists respectively, the second is “**age**” and both are integers.

2- Inside the function, declare the prices of the ticket as follows:

1- **250 EGP** for Egyptians 2- **\$30** for Tourists of any other nationality

3- Apply discounts on tickets based on the ages range entered:

- **If the visitor's age is between 6 to 12 years → 20% discount**
- **If the visitor's age is between 13 to 19 years → 15% discount**
- **If the visitor's age is 20 years or above → 10% discount**

4- Finally, match the nationality of the visitor, **either 1 or 2, or invalid** for invalid inputs with displaying the discount percentage and the final ticket price to the user.

5- The program should be working as long as **-1** is not entered in the nationality option, which will exit the program.

As a bonus part, extend the function with a feature to convert the tourist ticket price **from USD to EGP** based on a given conversion rate for the tourist's case.

Useful Hints:

- ✓ Make sure to set the **correct range** for each age group.
- ✓ Use this formula to calculate ticket price after discount:
ticket_price x (1 - discount), For 20% discount: **250 x (1-0.20)**
- ✓ For the bonus part, add a **3rd parameter** to the function named **conversion_rate** to take the rate and display price in EGP.

Expected Output:

Example of 2 visitors used the program on Setosa website

```
Welcome to Setosa Aqua park!
Check your discount by answering the following:

Enter nationality (1 for Egyptians, 2 for Tourists, -1 to exit): 1
Enter age: 12
20.0% discount. Ticket price: 200.00 EGP

Enter nationality (1 for Egyptians, 2 for Tourists, -1 to exit): 2
Enter age: 16
15.0% discount. Ticket price: $25.50

Enter nationality (1 for Egyptians, 2 for Tourists, -1 to exit): -1
Thank you for using Setosa Park's ticket system!
```

An Egyptian aged 12, took 20% discount.

A tourist aged 16, took 15% discount.

Example of implementing the bonus part

```
Welcome to Setosa Aqua Park!
Check your discount by answering the following:

Enter nationality (1 for Egyptians, 2 for Tourists, -1 to exit): 2
Enter age: 21
Enter conversion rate: 50
10.0% discount. Ticket price: 1350.00 EGP

Enter nationality (1 for Egyptians, 2 for Tourists, -1 to exit): 1
Enter age: 21
10.0% discount. Ticket price: 225.00 EGP
```

Asking for conversion rate in the tourist case.