



CODE CHALLENGE
CHAMPIONSHIP

PYTHON MISSION 1

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SENIOR CATEGORY

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Zoo Tickets Calculator

Overview:

A zoo named “WonderLand” is intending to make discounts on their entrance tickets for all visitors from different nationalities to attract more visitors as the zoo 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- **120 EGP** for Egyptians
 - 2- **\$25** for Tourists of any other nationality
- 3- Apply discounts on tickets based on the ages range entered:
 - If the visitor’s age is between 2 to 5 years → 50% discount
 - If the visitor’s age is between 6 to 12 years → 25% 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 25% discount: **120 x (1 - 0.25)**
- ✓ 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

```
Welcome to WonderLand zoo park!
Check your discount by answering the following:

Enter nationality (1 for Egyptians, 2 for Tourists, -1 to exit): 1
Enter age: 7
25.0% discount. Ticket price: 90.00 EGP

Enter nationality (1 for Egyptians, 2 for Tourists, -1 to exit): 2
Enter age: 12
25.0% discount. Ticket price: $18.75

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

An Egyptian aged 7, took 25% discount.

A tourist aged 12, took 25% discount.

Example of implementing the bonus part

```
Welcome to WonderLand Zoo Park!
Check your discount by answering the following:

Enter nationality (1 for Egyptians, 2 for Tourists, -1 to exit): 2
Enter age: 18
Enter conversion rate: 50
15.0% discount. Ticket price: 1062.50 EGP

Enter nationality (1 for Egyptians, 2 for Tourists, -1 to exit): 1
Enter age: 18
15.0% discount. Ticket price: 102.00 EGP
```

Asking for conversion rate in the tourist case.