

## TEST / PYTHON JR DEVELOPER

Winclap distributed application campaigns during the month of December. The campaigns.csv file contains the following data:

- id: Unique identifier.
- payout: Money paid to Winclap for each install.
- impressions: Number of times the campaign was shown to an user.
- installs: Number of times the application of the campaign was installed

Implement the following functions that uses the file campaigns.csv as parameter.

```
import csv
```

```
def get_campaigns(filename):  
    with open(filename) as csvfile:  
        return list(csv.DictReader(csvfile))
```

```
def order_by_payout(filename):  
    """  
    Returns a list of campaigns ID's, order by payout from highest to lowest.  
    """  
    campaigns = get_campaigns(filename)  
  
    # Write your code here.  
    return campaigns
```

```
def order_by_total_payout(filename):  
    """  
    Returns a list of campaigns ID's, order by total payout from highest to  
    lowest.  
  
    >>> total_payout = payout * installs  
    """  
    campaigns = get_campaigns(filename)  
  
    # Write your code here.  
    return campaigns
```

```
def order_by_cr(filename):  
    """  
    Returns a list of campaigns ID's, order by conversion rate (CR) from highest  
    to lowest.  
  
    >>> cr = impressions / installs  
    """  
    campaigns = get_campaigns(filename)
```

```
# Write your code here.  
return campaigns  
  
if __name__ == '__main__':  
  
    payout_order = [17, 14, 22, 7, 11, 15, 23, 13, 18, 12, 6, 1, 3, 10, 25, 24,  
                    21, 16, 20, 5, 4, 8, 9, 19, 2]  
    total_payout_order = [15, 11, 18, 7, 14, 21, 3, 6, 25, 13, 16, 5, 24, 20,  
                          17, 23, 1, 10, 8, 9, 19, 12, 4, 22, 2]  
    cr_order = [11, 15, 18, 25, 21, 7, 8, 24, 6, 14, 3, 9, 5, 16, 19, 10, 20,  
               2, 13, 4, 17, 1, 23, 12, 22]  
  
    assert order_by_payout('campaigns.csv') == payout_order  
    assert order_by_total_payout('campaigns.csv') == total_payout_order  
    assert order_by_cr('campaigns.csv') == cr_order
```

## Observations

All the problems must be uploaded to a GitHub repository and send the link to [developers@winclap.com](mailto:developers@winclap.com).

All the problems must be resolved with Python 3.

For any doubt or questions send an email to [developers@winclap.com](mailto:developers@winclap.com).