# Reward point calculation logic

As per the requirements, rewards should be calculated for the past three months. So, if you consider today as 24 June, valid time period to consider would be around 24 March to 24 June. Moment package is used to check the validity of record over this period.

# Test Cases

## **Test Case 1: Transaction Over 100$**

#### **Input**

* Amount: 120$

#### **Expected Output**

* Points earned: 90
* Total points earned for customer: 90

#### **Description**

As transaction amount is 120. Amount above hundred dollars is applicable for 2 reward points, which is 2\*20 = 40 points, amount between 50 to 100 is applicable for 1 reward point, which is 50 points

## **Test Case 2: Transaction not over 50$**

#### **Input**

* Amount: 50$

#### **Expected Output**

* Points earned: 0
* Total points earned for customer: 0

#### **Description**

Only transactions above 50$ are applicable for reward points. So, 0 points are received

## **Test Case 3: Transaction between 50$ and 100$**

#### **Input**

* Amount: 98$

#### **Expected Output**

* Points earned: 48
* Total points earned for customer: 48

#### **Description**

As the transaction amount is between 50 and 100$, one point is received for every dollar above 50$. i.e 98 – 50 = 48 points are received

## **Test Case 4: Transaction equals 100$**

#### **Input**

* Amount: 100$

#### **Expected Output**

* Points earned: 50
* Total points earned for customer: 50

#### **Description**

As the transaction amount not over 100$, one point is received for every dollar above 50$. i.e 100 – 50 = 50 points are received

## **Test Case 5: Transaction done in current month is applicable for reward**

#### **Input**

* Date: today
* Amount: 100$

#### **Expected Output**

* Points earned: 50
* Total points earned for customer: 50

#### **Description**

As the transaction is done in valid time period, record is considered for reward points

## **Test Case 6: Rewards are applicable for txns done in past month and current month**

#### **Input**

* Dates: today and past month same day
* Amount: 100$ for today and 100$ for past month same day

#### **Expected Output**

* Points earned: 50 for this month and 50 for past month
* Total points earned for customer: 100

#### **Description**

Reward point records are created for this month, past month and a total reward points record is created summing up these two records.

## **Test Case 7: Separate rewards are created for each user**

#### **Input**

* Users: Michael Brown, John de Brayn and Jade smith
* Amount: 100$ by Michael brown and 100$ by Jade smith
* Date: All txns are done in this month

#### **Expected Output**

* Points earned: 50 for Michael Brown, 50 for John de Brayn and 50 for Jade smith
* Total points earned: 50 for Michael Brown, 50 for John de Brayn and 50 for Jade smith
* Total reward records count: 3
* Current month reward records count: 3

#### **Description**

Individual reward point records are created for every user