# Reward point calculation logic

# A customer receives 2 points for every dollar spent over $100 in each transaction, plus 1 point for every dollar spent between $50 and $100 in each transaction. (e.g. a $120 purchase = 2x$20 + 1x$50 = 90 points).

Reward point threshold can be adjusted in the configuration screen.

# Test Cases

## **Test Case 1: getTotalRewards function for 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: getUserRewardsData function for 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 3: getMonthlyRewards function for 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 4:** **getUserRewardsData function for 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 5: getMonthlyRewards function for 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 6: getTotalRewards function for 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 7: getUserRewardsData function, one point reward is generated for 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 8: getMonthlyRewards function, one point reward is generated for 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 9: getTotalRewards function, one point reward is generated for 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 10: getUserRewardsData function, reward generated is 50 if 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 11: getMonthlyRewards function, reward generated is 50 if 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 10: getMonthlyRewards function, reward generated is 50 if 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 11: getMonthlyRewards function, separate reward records are created for a user for txns done in different months**

#### **Input**

* Users: Michael Brown in two different months
* Amount: 100$ and 100$
* Dates: past month and this month

#### **Expected Output**

* Points earned: 50 for this month and 50 for past month

#### **Description**

Individual reward point records are created for different months

## **Test Case 12: getTotalRewards function, all months records are added for a single user**

#### **Input**

* Users: Michael Brown in two different months
* Amount: 100$ and 100$
* Dates: past month and this month

#### **Expected Output**

* Points earned: 100
* Single record is created

#### **Description**

Different month records are added together for a user

## **Test Case 13:** **getUserRewardsData function, 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

## **Test Case 14:** **getMonthlyRewards function, 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

## **Test Case 15:** **getTotalRewards function, 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