SIP Interest Rate Test Cases (Weekly & Monthly)

# Test Strategy

This document outlines the approach to test the interest rate functionality for Weekly and Monthly Systematic Investment Plans (SIPs). The goal is to ensure the interest is correctly calculated, applied, and credited based on the specified rules such as 5% annual interest rate and post-6-month eligibility.

## Assumptions

* Interest Rate: 5% annually
* Weekly SIP: Fixed amount deducted every week
* Monthly SIP: Fixed amount deducted every month
* Interest applies after 6 months
* Interest is calculated using Simple Interest formula: (P × R × T) / 100

# Positive Test Cases

## Interest credited after 1 year (Weekly SIP)

Frequency: Weekly

Steps to Execute:

1. Create ₹100/week SIP
2. Simulate or wait for 1 year
3. Check interest logs or wallet

Expected Result: Interest applied weekly. Total interest ≈ ₹130.00

## Interest credited after 1 year (Monthly SIP)

Frequency: Monthly

Steps to Execute:

1. Create ₹1000/month SIP
2. Simulate or wait for 1 year
3. Validate interest credited

Expected Result: Interest ≈ ₹325 credited at maturity

## Interest credited only after 6 months

Frequency: Monthly

Steps to Execute:

1. Create SIP
2. Simulate 5 months (no interest)
3. Simulate post-6-month period and check again

Expected Result: Interest appears only after 6th month

## Break SIP after 7 months (interest eligible)

Frequency: Weekly

Steps to Execute:

1. Create weekly SIP
2. Break after 7 months
3. Validate partial interest

Expected Result: Interest applied for weeks after 6-month mark

## Full maturity with bonus interest logic

Frequency: Monthly

Steps to Execute:

1. Create SIP
2. Wait 12 months
3. Check if bonus/extra interest logic is triggered

Expected Result: Bonus interest applied if applicable

# Negative Test Cases

## No interest before 6 months

Frequency: Weekly

Steps to Execute:

1. Create SIP
2. Simulate 5 months
3. Check interest credited

Expected Result: No interest should be credited

## Break SIP before 6 months

Frequency: Monthly

Steps to Execute:

1. Create SIP
2. Break after 3 months

Expected Result: SIP stopped, no interest credited

## Incorrect rate setup (admin config error)

Frequency: Weekly

Steps to Execute:

1. Set system interest rate to 0%
2. Run SIP for 12 months

Expected Result: No interest is credited

## Interest applied before 6 months (BUG TEST)

Frequency: Monthly

Steps to Execute:

1. Create SIP
2. Simulate 2 months
3. Check wallet

Expected Result: If interest is shown, it's a bug

## Interest miscalculation (BUG TEST)

Frequency: Weekly

Steps to Execute:

1. Create SIP
2. Simulate 12 months
3. Manually calculate & compare

Expected Result: System interest != expected → report calculation bug