#include <stdio.h>

int main() {

float principle, rateOfInterest, timePeriod, compoundInterest;

float minimumPrinciple = 100.0;

float maximumPrinciple = 1000000.0;

float minimumRate = 5.0;

float maximumRate = 10.0;

int minimumTime = 1;

int maximumTime = 10;

printf("Enter the principle amount (between %.2f and %.2f Rs): ", minimumPrinciple, maximumPrinciple);

scanf("%f", &principle);

if (principle < minimumPrinciple || principle > maximumPrinciple) {

printf("Error: Principle amount must be between %.2f and %.2f Rs.\n", minimumPrinciple, maximumPrinciple);

return 1; // Exit with error code

}

printf("Enter the rate of interest (between %.2f%% and %.2f%%): ", minimumRate, maximumRate);

scanf("%f", &rateOfInterest);

if (rateOfInterest < minimumRate || rateOfInterest > maximumRate) {

printf("Error: Rate of interest must be between %.2f%% and %.2f%%.\n", minimumRate, maximumRate);

return 1; // Exit with error code

}

printf("Enter the time period (between %d and %d years): ", minimumTime, maximumTime);

scanf("%f", &timePeriod);

if (timePeriod < minimumTime || timePeriod > maximumTime) {

printf("Error: Time period must be between %d and %d years.\n", minimumTime, maximumTime);

return 1; // Exit with error code

}

float amount = principle \* (1 + rateOfInterest / 100);

compoundInterest = amount - principle;

printf("Principle amount: %.2f Rs\n", principle);

printf("Rate of interest: %.2f%%\n", rateOfInterest);

printf("Time period: %.2f years\n", timePeriod);

printf("Compound interest: %.2f Rs\n", compoundInterest);

return 0;

}