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CODE:-

import java.util.Scanner;

class budget

{

static Double Income=0.0;

static Double budget=0.0;

Double budget\_calc()

{

Scanner sc=new Scanner(System.in);

System.out.print("Enter your income (Month Wise): ");

Income=sc.nextDouble();

System.out.println(" You can afford 25% of budget of your total income ");

budget=Income\*0.25;

return budget;

}

}

class groceries extends budget {

static Double gro\_budget = 0.0;

static Double Grain\_budget = 0.0;

static int Vegii\_budget = 0;

static Double other\_budget = 0.0;

static int kitchen\_budget = 0;

int G\_total=0;

String[][] arr = {{"flour", "50"}, {"Rice", "60"}, {"Pulses", "40"}, {"Vegii", "55"}, {"oil", "60"}, {"milk", "45"}, {"sugar", "70"},{"extra","200"}};

void gro() {

System.out.println("Groceries budget is 40% of your total budget");

gro\_budget = budget \* 0.40;

System.out.println("Groceries budget is: " + gro\_budget);

}

void gro\_calc() {

System.out.println("\_ \_ \_ \_ \_ \_ \_ \_ \_ Budget for each grocerie product \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_");

Grain\_budget = gro\_budget \* 0.25;

Vegii\_budget = (int) (gro\_budget \* 0.20);

other\_budget = gro\_budget \* 0.30;

kitchen\_budget = (int) (gro\_budget \* 0.25);

System.out.println(" \_ \_ \_ \_ \_Budget for each element: \_ \_ \_ \_ \_ \_ \_ \_ ");

System.out.println("Budget for grains " + Grain\_budget);

System.out.println("Budget for vegii " + Vegii\_budget);

System.out.println("Budget for Kitchen items " + kitchen\_budget);

System.out.println("Budget for other items " + other\_budget);

}

int gro\_calc(Double Grains\_budget) {

char ch = ' ';

int Grains\_price = 0;

System.out.println(arr[0][0] + "---" + arr[0][1]);

System.out.println(arr[1][0] + "---" + arr[1][1]);

System.out.println(arr[2][0] + "---" + arr[2][1]);

Scanner sc = new Scanner(System.in);

do {

System.out.println(" \_ \_ \_ \_ \_ \_Choose Your Option \_ \_ \_ \_ \_ \_");

System.out.println("Press 1 for flour");

System.out.println("Press 2 for rice");

System.out.println("Press 3 for pulse");

System.out.println(" \_ \_ \_ \_ \_ \_ Make Your Choice \_ \_ \_ \_ \_ \_ ");

int c = sc.nextInt();

int price = 0;

switch (c) {

case 1: {

int quant = 0;

System.out.println("Quantity for packets of Flour");

quant = sc.nextInt();

price = Integer.parseInt(arr[0][1]);

System.out.println("Price for Flour -->" + price \* quant);

Grains\_price += price \* quant;

break;

}

case 2: {

int quant = 0;

System.out.println("Quantity for packets of Rice");

quant = sc.nextInt();

price = Integer.parseInt(arr[1][1]);

System.out.println("price for Rice-->" + price \* quant);

Grains\_price += price \* quant;

break;

}

case 3: {

int quant = 0;

System.out.println("Quantity for packets of Pulse");

quant = sc.nextInt();

price = Integer.parseInt(arr[2][1]);

System.out.println("Price for Pulse --> " + price \* quant);

Grains\_price += price \* quant;

break;

}

}

System.out.println(" Enter '2' to proceed or Enter 'Z' for menu ");

ch = sc.next().charAt(0);

} while ((ch == 'Z') || (ch == 'z'));

if (Grains\_price > Grains\_budget) System.out.println(" \*\*\*\*\*\*\*\*\*\*OVER BUDGET\*\*\*\*\*\*\*\*\*\* ");

G\_total+=Grains\_price;

return Grains\_price;

}

int gro\_calc(int Vegii\_budget) {

char ch = ' ';

int Vegii\_price = 0;

System.out.println(arr[3][0] + "---" + arr[3][1]);

Scanner sc = new Scanner(System.in);

do {

System.out.println(" \_ \_ \_ \_ \_ \_Choose Your Option \_ \_ \_ \_ \_ \_ ");

System.out.println("Press 1 for vegii");

System.out.println(" \_ \_ \_ \_ \_ \_ Make Your Choice \_ \_ \_ \_ \_ \_ ");

int c = sc.nextInt();

int price = 0;

switch (c) {

case 1: {

int quant = 0;

System.out.println("Quantity for packets of vegii");

quant = sc.nextInt();

price = Integer.parseInt(arr[3][1]);

System.out.println("Price for Vegii -->" + price \* quant);

Vegii\_price += price \* quant;

break;

}

}

System.out.println(" Enter '3' to proceed or Enter 'Z' for menu ");

ch = sc.next().charAt(0);

} while ((ch == 'Z') || (ch == 'z'));

if (Vegii\_price > Vegii\_budget)

System.out.println(" \*\*\*\*\*\*\*\*\*\*OVER BUDGET\*\*\*\*\*\*\*\*\*\* ");

G\_total+=Vegii\_price;

return Vegii\_price;

}

int Gro\_calc(int kitchen\_budget) {

char ch = ' ';

int kitchen\_price = 0;

System.out.println(arr[7][0] + "---" + arr[7][1]);

Scanner sc = new Scanner(System.in);

do {

System.out.println(" \_ \_ \_ \_ \_ \_Choose Your Option \_ \_ \_ \_ \_ \_ ");

System.out.println("Press 1 for Utensils");

System.out.println(" \_ \_ \_ \_ \_ \_ Make Your Choice \_ \_ \_ \_ \_ \_ ");

int c = sc.nextInt();

int price = 0;

switch (c) {

case 1: {

int quant = 0;

System.out.println("kitchen items--->");

quant = sc.nextInt();

price = Integer.parseInt(arr[7][1]);

System.out.println("price for utensils-->" + price \* quant);

kitchen\_price += price \* quant;

break;

}

}

System.out.println(" Enter '4' to proceed or Enter 'Z' for menu ");

ch = sc.next().charAt(0);

} while ((ch == 'Z') || (ch == 'z'));

if (kitchen\_price > kitchen\_budget)

System.out.println(" \*\*\*\*\*\*\*\*\*\*OVER BUDGET\*\*\*\*\*\*\*\*\*\* ");

G\_total+=kitchen\_price;

return kitchen\_price;

}

int Gro\_calc(Double other\_budget) {

char ch = ' ';

int other\_price = 0;

System.out.println(arr[4][0] + "---" + arr[4][1]);

System.out.println(arr[5][0] + "---" + arr[5][1]);

System.out.println(arr[6][0] + "---" + arr[6][1]);

Scanner sc = new Scanner(System.in);

do {

System.out.println(" \_ \_ \_ \_ \_ \_Choose Your Option \_ \_ \_ \_ \_ \_ ");

System.out.println("Press 1 for Oil");

System.out.println("Press 2 for Milk");

System.out.println("Press 3 for Sugar");

System.out.println(" \_ \_ \_ \_ \_ \_ Make Your Choice \_ \_ \_ \_ \_ \_ ");

int c = sc.nextInt();

int price = 0;

switch (c) {

case 1: {

int quant = 0;

System.out.println("Quantity for bottles of oil");

quant = sc.nextInt();

price = Integer.parseInt(arr[4][1]);

System.out.println(" Price for oil --> " + price \* quant);

other\_price += price \* quant;

break;

}

case 2: {

int quant = 0;

System.out.println("Quantity for packets of Milk");

quant = sc.nextInt();

price = Integer.parseInt(arr[5][1]);

System.out.println(" Price for milk --> " + price \* quant);

other\_price += price \* quant;

break;

}

case 3: {

int quant = 0;

System.out.println("Quantity for packets of Sugar");

quant = sc.nextInt();

price = Integer.parseInt(arr[6][1]);

System.out.println(" Price for sugar --> " + price \* quant);

other\_price += price \* quant;

break;

}

}

System.out.println(" Enter '5' to proceed or Enter 'Z' for menu ");

ch = sc.next().charAt(0);

} while ((ch == 'Z') || (ch == 'z'));

if (other\_price > other\_budget) System.out.println(" \*\*\*\*\*\*\*\*\*\*OVER BUDGET\*\*\*\*\*\*\*\*\*\* ");

G\_total+=other\_price;

return other\_price;

}

}

class bills extends budget

//According to list of appliances with monthly consuption of electricity per unit is 9 so total cost for each appliance ia as follow

{

String[][] E = {{"Fan", "90"}, {"T\_lights", "100"}, {"CFL", "54"}, {"washing\_machine", "70"}, {"TV", "120"}, {"other\_appliances", "100"}};

String[][] O = {{"clothing", "500"}, {"House\_mantainance", "250"}};

static Double e\_budget = 0.0;

static Double o\_budget = 0.0;

int E\_bill\_tot = 0;

int O\_bill\_tot = 0;

void bills() {

System.out.println("Bills contain 30% of budget");

e\_budget = budget \* 0.30;

System.out.println("Budget for bills is : --> " + e\_budget);

System.out.println("Considering per unit charge as 9 RS.");

}

int e\_calc() {

int e\_price = 0;

System.out.println(E[0][0] + "---" + E[0][1]);

System.out.println(E[1][0] + "---" + E[1][1]);

System.out.println(E[2][0] + "---" + E[2][1]);

System.out.println(E[3][0] + "---" + E[3][1]);

System.out.println(E[4][0] + "---" + E[4][1]);

System.out.println(E[5][0] + "---" + E[5][1]);

Scanner sc = new Scanner(System.in);

char ch = ' ';

do {

System.out.println(" \_ \_ \_ \_ \_ \_Choose Your Option \_ \_ \_ \_ \_ \_ ");

System.out.println("Press 1 for fan");

System.out.println("press 2 for T\_light");

System.out.println("Press 3 for CFL");

System.out.println("Press 4 for Washing\_machine");

System.out.println("Press 5 for TV");

System.out.println("Press 6 for other\_app");

System.out.println(" \_ \_ \_ \_ \_ \_ Make Your Choice \_ \_ \_ \_ \_ \_ ");

int c = sc.nextInt();

int price = 0;

switch (c) {

case 1: {

int quant = 0;

System.out.println("No. of Fans: ");

quant = sc.nextInt();

price = Integer.parseInt(E[0][1]);

System.out.println(" Electric Consuption of Fan: " + price \* quant);

e\_price += price \* quant;

break;

}

case 2: {

int quant = 0;

System.out.println("No of T\_light : ");

quant = sc.nextInt();

price = Integer.parseInt(E[1][1]);

System.out.println(" Electric Consuption of T\_light: " + price \* quant);

e\_price += price \* quant;

break;

}

case 3: {

int quant = 0;

System.out.println("No of CFL : ");

quant = sc.nextInt();

price = Integer.parseInt(E[2][1]);

System.out.println(" Electric Consuption of CFL: " + price \* quant);

e\_price += price \* quant;

break;

}

case 4: {

int quant = 0;

System.out.println("No of Washing\_machine : ");

quant = sc.nextInt();

price = Integer.parseInt(E[3][1]);

System.out.println(" Electric Consuption of Wash\_machine: " + price \* quant);

e\_price += price \* quant;

break;

}

case 5: {

int quant = 0;

System.out.println("No of TV : ");

quant = sc.nextInt();

price = Integer.parseInt(E[4][1]);

System.out.println(" Electric Consuption of TV: " + price \* quant);

e\_price += price \* quant;

break;

}

case 6: {

int quant = 0;

System.out.println("Other Electic Consuption: ");

quant = sc.nextInt();

price = Integer.parseInt(E[5][1]);

System.out.println("Other Electric Consuption: " + price \* quant);

e\_price += price \* quant;

break;

}

}

System.out.println(" Enter '6' to proceed or Enter 'Z' for menu ");

ch = sc.next().charAt(0);

} while ((ch == 'Z') || (ch == 'z'));

if (e\_price > e\_budget)

System.out.println(" \*\*\*\*\*\*\*\*\*\*OVER BUDGET\*\*\*\*\*\*\*\*\*\* ");

E\_bill\_tot = e\_price;

return e\_price;

}

void O\_exp()

{

System.out.println("Other expenses contains 30% of budget");

o\_budget = budget \* 0.30;

System.out.println("For other expenses of house management ");

System.out.println("Other Expenses are : " + o\_budget);

}

int o\_calc() {

int o\_price = 0;

Scanner sc = new Scanner(System.in);

System.out.println(O[0][0] + "---" + O[0][1]);

System.out.println(O[1][0] + "---" + O[1][1]);

char ch = ' ';

do {

System.out.println(" \_ \_ \_ \_ \_ \_Choose Your Option \_ \_ \_ \_ \_ \_ ");

System.out.println("Press 1 for Clothings");

System.out.println("Press 2 for House\_management");

System.out.println(" \_ \_ \_ \_ \_ \_ Make Your Choice \_ \_ \_ \_ \_ \_ ");

int c = sc.nextInt();

int price = 0;

switch (c) {

case 1: {

int quant = 0;

System.out.println("Expensions for Clothings : ");

quant = sc.nextInt();

price = Integer.parseInt(O[0][1]);

System.out.println("No of Clothings : " + price \* quant);

o\_price += price \* quant;

break;

}

case 2: {

int quant = 0;

System.out.println("House\_maintanance: ");

quant = sc.nextInt();

price = Integer.parseInt(O[1][1]);

System.out.println("House maintainence: " + price \* quant);

o\_price += price \* quant;

break;

}

}

System.out.println(" Enter '7' to proceed and calculate total expenses.. ");

ch = sc.next().charAt(0);

}while ((ch == 'Z') || (ch == 'z')) ;

if (o\_price > o\_budget)

System.out.println(" \*\*\*\*\*\*\*\*\*\*OVER BUDGET\*\*\*\*\*\*\*\*\*\* ");

O\_bill\_tot = o\_price;

return o\_price;

}

}

class Home {

public static void main(String args[]) {

budget b = new budget();

groceries g = new groceries();

bills B = new bills();

System.out.println("The Calculated Budget is : " + b.budget\_calc());

System.out.println(" \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ Calculating Expenses For Groceries \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_");

g.gro();

System.out.println(" ");

g.gro\_calc();

System.out.println(" " +

" ");

System.out.println(" \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_");

System.out.println("Price for Grains: " + g.gro\_calc(groceries.Grain\_budget));

System.out.println("Price for Vegii: " + g.gro\_calc(groceries.Vegii\_budget));

System.out.println("Price for Kitchen: " + g.Gro\_calc(groceries.kitchen\_budget));

System.out.println("Price for Other: " + g.Gro\_calc(groceries.other\_budget));

System.out.println("Total expenses on groceries: " + g.G\_total);

{

double a = (g.gro\_budget - g.G\_total);

System.out.println("Savings from groceries budget: " + (a));

if (a < 0.0)

System.out.println("Over expense by: " + (-a));

}

System.out.println(" \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ ");

System.out.println(" \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ Calculating Expenses For Electricity \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ ");

B.bills();

System.out.println(" " +

" ");

System.out.println("Electric Bill is: " + B.e\_calc());

System.out.println("Total expenses in electric bill: " + B.E\_bill\_tot);

{

double a = (B.e\_budget - B.E\_bill\_tot);

System.out.println("Savings from electic\_bill budget" + (a));

if (a < 0.0)

System.out.println("Over expense by: " + (-a));

}

System.out.println(" \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ ");

System.out.println(" \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ Calculating Other Extra Bills \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ ");

B.O\_exp();

System.out.println(" " +

" ");

System.out.println("Bill for other expenses: " + B.o\_calc());

System.out.println("Total expenses in house maintainance and clothing: " + B.O\_bill\_tot);

{

double a = (B.o\_budget - B.O\_bill\_tot);

System.out.println("Savings from groceries budget: " + (a));

if (a < 0.0)

System.out.println("Over expense by: " + (-a));

}

System.out.println(" " +

" ");

System.out.println("Total expenses and budget comparision");

System.out.println("Total expenses from groceries and bills: "+(g.G\_total+B.E\_bill\_tot+B.O\_bill\_tot));

System.out.println("Total budget for expenses: "+budget.budget);

System.out.println(" ");

System.out.println(" ");

{

double a = (budget.budget - (g.G\_total+B.E\_bill\_tot+B.O\_bill\_tot));

System.out.println("Savings from the total budget of house management: " + (a));

if (a < 0.0)

System.out.println("Over expense in total budget by: " + (-a));

}

}

}

OUTPUT:-





