

A program to calculate BMR based on weight, age, height, gender and activity.

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#include <stdio.h>

#include <stdlib.h>

double calculatecalories (double weight, double height, double age, char gender);

double BMI (double weight, double height, double age, char gender);

int main()

{

    double weight, height, age, x;

    char gender, i;

    printf("please enter the following information:\n weight in kilograms\n height in meters\n age\n in years\n Gender (M or F)\n");

    scanf("%lf%lf%lf %c", &weight, &height, &age, &gender);

    printf("Press one to calculate daily caloric needs\n press two to exit\n");

    scanf("%lf", &x);

    if (x==1)

    {

        printf("press A to calculate the BMR for sedentary\n press B to calculate BMR for lightly\n active\n press C to calculate the calories needed for moderately active\n press D to calculate the\n calories for very active\n press E for extra active\n press F to calculate BMI\n");

        scanf(" %c",&i);

        double calories;

        if (i=='A')

        {double y= calculatecalories(weight, height, age, gender);

            calories= y*1.2;
```

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    printf("The required calories are:%lf\n", calories);
}

else if (i=='B')

{double y= calculatecalories(weight, height, age, gender);

    calories= y*1.375;

    printf("The required calories are:%lf\n", calories);

}

else if (i=='C')

{double y= calculatecalories(weight, height, age, gender);

    calories= y*1.55;

    printf("The required calories are:%lf\n", calories);

}

else if (i=='D')

{double y= calculatecalories(weight, height, age, gender);

    calories= y*1.725;

    printf("The required calories are: %lf\n", calories);

}

else if (i=='E')

{double y= calculatecalories(weight, height, age, gender);

    calories= y*1.9;

    printf("The required calories are:%lf\n", calories);

}

else if (i=='F'){

    double L= BMI(weight, height, age, gender);

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printf("The BMI is:%lf\n", L);

if ((int)BMI<18.5){

    printf("underweight\n");}

else if ((int)BMI>=18.5 && (int)BMI <24.9){

    printf("normal weight\n");}

else if ((int)BMI>=25 && (int)BMI<29.9){

    printf("Overweight");}

else

{

    printf("Obese");

}

}

else

    printf("Invalid input\n");

}

else

    printf("Thank you\n");

return 0;

}

```

```

double calculatecalories (double weight, double height, double age, char gender)

{ double BMR;

    if (gender=='F')

    {

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        BMR= 444.593 + (9.247*weight)+(3.0988*height)-(4.330*age);
    }

    else if (gender=='M')
    {
        BMR= 88.362+(13.397*weight)+(4.799*height)-(5.677*age);
    }

    else
        printf("Invalid input\n");

    return BMR;

}

double BMI (double weight, double height, double age, char gender){
    double heightt= height/100;

    double BMI= weight/(heightt*heightt);

    return BMI;

}

```