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# Cocomo Model

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CODE:

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#include<stdio.h>
#include<math.h>
#define sal 75000.0
void basic()
{
    int a1;
    printf("Enter 1 for Organic..\nEnter 2 for Semi-Detached..\nEnter 3 for Embedded..\n");
    scanf("%d",&a1);
    if(a1==1)
    {
        float a=2.4,b=1.05;
        float effort,loc;
        printf("Enter LOC value-->");
        scanf("%f",&loc);
        effort=a*pow(loc,b);
        float time=2.5*pow(effort,0.38);
        printf("Effort is--%f\nDevelopment Time is-->%f\n",effort,time);
        float cost=time*sal;
        printf("Total Cost is-->%f\n",cost);
        printf("Average Productivity-->%f\n",(loc/effort));
    }
    if(a1==2)
    {
        float a=3,b=1.12;
        float effort,loc;
        printf("Enter LOC value-->");
        scanf("%f",&loc);
        effort=a*pow(loc,b);
        float time=2.5*pow(effort,0.35);
        printf("Effort is--%f\nDevelopment Time is-->%f\n",effort,time);
        float cost=time*sal;
        printf("Total Cost is-->%f\n",cost);
        printf("Average Productivity-->%f\n",(loc/effort));
    }
    if(a1==3)
    {
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        float a=3.6,b=1.20;
        float effort,loc;
        printf("Enter LOC value-->");
        scanf("%f",&loc);
        effort=a*pow(loc,b);
        float time=2.5*pow(effort,0.32);
        printf("Effort is--%f\nDevelopment Time is-->%f\n",effort,time);
        float cost=time*sal;
        printf("Total Cost is-->%f\n",cost);
        printf("Average Productivity-->%f\n",(loc/effort));
    }
}
void inter()
{
    int a1,b1[15],eaf=1;
    printf("Enter 1 for Organic..\nEnter 2 for Semi-Detached..\nEnter 3 for Embedded..\n");
    scanf("%d",&a1);
    if(a1==1)
    {
        float a=3.2,b=1.05;
        float effort,loc;
        printf("Enter LOC value-->");
        scanf("%f",&loc);
        printf("Enter 15 COST DRIVER values-->\n");
        for(int i=0;i<14;i++)
        {
            scanf("%d",&b1[i]);
            eaf=eaf*b1[i];
        }
        effort=a*pow(loc,b)*eaf;
        float time=2.5*pow(effort,0.38);
        printf("Effort is--%f\nDevelopment Time is-->%f\n",effort,time);
        float cost=time*sal;
        printf("Total Cost is-->%f\n",cost);
        printf("Average Productivity-->%f\n",(loc/effort));
    }
    if(a1==2)
    {
        float a=3,b=1.12;
        float effort,loc;
        printf("Enter LOC value-->");
        scanf("%f",&loc);
        printf("Enter 15 COST DRIVER values-->\n");
        for(int i=0;i<14;i++)
        {
            scanf("%d",&b1[i]);
            eaf=eaf*b1[i];

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    }
    effort=a*pow(loc,b)*eaf;
    float time=2.5*pow(effort,0.35);
    printf("Effort is--%f\nDevelopment Time is-->%f\n",effort,time);
    float cost=time*sal;
    printf("Total Cost is-->%f\n",cost);
    printf("Average Productivity-->%f\n",(loc/effort));
}
if(a1==3)
{
    float a=2.8,b=1.20;
    float effort,loc;
    printf("Enter LOC value-->");
    scanf("%f",&loc);
    effort=a*pow(loc,b)*eaf;
    printf("Enter 15 COST DRIVER values-->\n");
    for(int i=0;i<14;i++)
    {
        scanf("%d",&b1[i]);
        eaf=eaf*b1[i];
    }
    float time=2.5*pow(effort,0.32);
    printf("Effort is--%f\nDevelopment Time is-->%f\n",effort,time);
    float cost=time*sal;
    printf("Total Cost is-->%f\n",cost);
    printf("Average Productivity-->%f\n",(loc/effort));
}
}
void main()
{
    int a;
    printf("Enter 1 for Basic Model..\nEnter 2 for Intermediate Model..\n");
    scanf("%d",&a);
    if(a==1)
        basic();
    if(a==2)
        inter();
}

```

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```
Aadhityas-MacBook-Air:C aadhitya$ gcc cocomo.c
Aadhityas-MacBook-Air:C aadhitya$ ./a.out
Enter 1 for Basic Model..
Enter 2 for Intermediate Model..
1
Enter 1 for Organic..
Enter 2 for Semi-Detached..
Enter 3 for Embedded..
1
Enter LOC value-->10000
Effort is--38037.421875
Development Time is-->137.537216
Total Cost is-->10315291.000000
Average Productivity-->0.262899
Aadhityas-MacBook-Air:C aadhitya$ █
```