```
//Calculator:
#include<stdio.h>
struct calculator
{
	void add(int a,int b)
	{
		printf("\naddition is: %d",a+b);
	}
	void add(float a,float b)
	{
		printf("\naddition is: %.2f",a+b);
	}
	void add(int a,float b)
	{
		printf("\naddition is: %.2f",a+b);
	}
	void add(float a,int b)
	{
		printf("\naddition is: %.2f",a+b);
	}
	void sub(int a,int b)
	{
		printf("\nsubstraction is: %d",a-b);
	}
	void sub(float a,float b)
```

```
{
        printf("\nsubstraction is: %.2f",a-b);
}
void sub(int a,float b)
{
        printf("\nsubstraction is: %.2f",a-b);
}
void sub(float a,int b)
{
        printf("\nsubstraction is: %.2f",a-b);
}
void mult(int a,int b)
{
        printf("\nmultiplication is: %d",a*b);
}
void mult(float a,float b)
{
        printf("\nmultiplication is: %.2f",a*b);
}
void mult(int a,float b)
{
        printf("\nmultiplication is: %.2f",a*b);
}
void mult(float a,int b)
{
```

```
		printf("\nmultiplication is: %.2f",a*b);
	}
	void div(int a,int b)
	{
		printf("\ndivision is: %.2f",a/b);
	}
	void div(float a,float b)
	{
		printf("\ndivision is: %.2f",a/b);
	}
	void div(int a,float b)
	{
		printf("\ndivision is: %.2f",a/b);
	}
	void div(float a,int b)
	{
		printf("\ndivision is: %.2f",a/b);
	}
};
int main()
{
	calculator c1;
	int a=10,b=20;
	float x=20.5,y=30.5;
	c1.add(a,b);
```

```
	c1.add(x,y);
	c1.add(a,x);
	c1.add(y,b);
	c1.sub(a,b);
	c1.sub(x,y);
	c1.sub(a,x);
	c1.sub(y,b);
	c1.mult(a,b);
	c1.mult(x,y);
	c1.mult(a,x);
	c1.mult(y,b);
	c1.div(a,b);
	c1.div(x,y);
	c1.div(a,x);
	c1.div(y,b);
	return 0;
}
//Printer:
#include<stdio.h>
#include<string.h>
struct printer
{
	void print(char ch)
	{
		printf("\nPrinting character:\n%c\n",ch);
```

```
	}
	void print(char* ch)
	{
		printf("\nPrinting string:\n%s\n",ch);
	}
	void print(int ch)
	{
		printf("\nPrinting integer:\n%d\n",ch);
	}
};
int main()
{
	printer p1;
	char c;
	char ch[20];
	int t,choice;
		printf("\nEnter choice:\n1.Print character\n2.print string\n3.print integer\n");
		scanf("%d",&choice);
		fflush(stdin);
			if(choice==1)
			{
				printf("\nEnter character to print:\n");
				scanf("%c",&c);
				p1.print(c);
			}
```

```
                else if(choice==2)
                {
                        printf("\nEnter string to print:\n");
                        scanf("%s",ch);
                        p1.print(ch);
                }
                else if(choice==3)
                {
                        printf("\nEnter integer to print:\n");
                        scanf("%d",&t);
                        p1.print(t);
                }
                else
                        printf("\nInvalid choice!\n");
        return 0;
}

//Vehicle:
#include<stdio.h>
#include<string.h>
struct Vehicle
{
        void fuel(int a)
        {
                printf("\nFuel type is electricity\n");
```

```
        }
        void fuel(char a)
        {
                printf("\nFuel type is gas\n");
        }
        void fuel(double a)
        {
                printf("\nFuel type is liquified\n");
        }
};
int main()
{
        Vehicle f1;
        int i,choice;
        char f;
        double d;
                printf("\nEnter choice:\n1.Electric vehicle\n2.CNG based\n3.Petrol/disel based\n0.to
exit\n");
                scanf("%d",&choice);
                fflush(stdin);
                if(choice==1)
                {
                        printf("\nEnter (1/0)\n");
                        scanf("%d",&i);
                        f1.fuel(i);
                }
```

```
		else if(choice==2)
		{
			printf("\nEnter (y/n)\n");
			scanf("%d",&f);
			f1.fuel(f);
		}
		else if(choice==3)
		{
			printf("\nEnter (1/0)\n");
			scanf("%lf",&d);
			f1.fuel(d);
		}
		else
			printf("\nInvalid choice!\n");
return 0;
}

//Smart tv:
#include<stdio.h>
#include<string.h>
struct SmartTv
{
	void feature(int a)
	{
		printf("\nUSB connectivity\n");
```

```
	}
	void feature(char a)
	{
		printf("\nDevice casting\n");
	}
	void feature(int a,int b)
	{
		printf("\nInternet connectivity\n");
	}
	void feature(int a,char b)
	{
		printf("\nHome theater connectivity\n");
	}
	void feature(char* a)
	{
		printf("\nMobile access\n");
	}
};
int main()
{
	SmartTv s1;
	int ch;
	do
	{
		printf("\nEnter your choice:\n1.connect USB\n2.cast device\n3.connect to internet\n4.connect home theater\n5.connect mobile phone\n0.to exit\n");
```

```
            scanf("%d",&ch);
            fflush(stdin);
            switch(ch)
            {
                case 1:
                s1.feature(23);
                break;
                case 2:
                s1.feature('p');
                break;
                case 3:
                s1.feature(2,3);
                break;
                case 4:
                s1.feature(23,'p');
                break;
                case 5:
                s1.feature("abc");
                break;
                default:
                printf("\nInvalid choice!\n");
            }
        }while(ch!=0);
        return 0;
}
```

```
//Music player:
#include<stdio.h>
#include<string.h>
struct MusicPlayer
{
	void input(int a)
	{
		printf("\nPlaying by connecting USB cable\n");
	}
	void input(int a,int b)
	{
		printf("\nPlaying by connecting Aux cable\n");
	}
	void input(char a)
	{
		printf("\nPlaying by inserting CD\n");
	}
	void input(double a)
	{
		printf("\nPlaying music by connecting bluetooth\n");
	}
};
int main()
{
```

```
MusicPlayer m1;
int i,j,ch;
double f;
char c;
do
{
printf("\nEnter your choice\n1.connect USB\n2.connect aux\n3.insert CD\n4.connect bluetooth\n0.to exit\n");
scanf("%d",&ch);
fflush(stdin);
        switch(ch)
        {
                case 1:
                {
                        printf("\nenter (1/0)\n");
                        scanf("%d",&i);
                        m1.input(i);
                }
                break;
                case 2:
                {
                        printf("\nenter 1 and 2\n");
                        scanf("%d %d",&i,&j);
                        m1.input(i,j);
                }
                break;
```

```
                case 3:
                {
                        printf("\nenter (y/n)\n");
                        scanf("%c",&c);
                        m1.input(c);
                }
                break;
                case 4:
                {
                        printf("\nenter (1/0)\n");
                        scanf("%lf",&f);
                        m1.input(f);
                }
                break;
                default:
                printf("\nInvalid choice!\n");
            }
        }while(ch!=0);
        return 0;
}
```