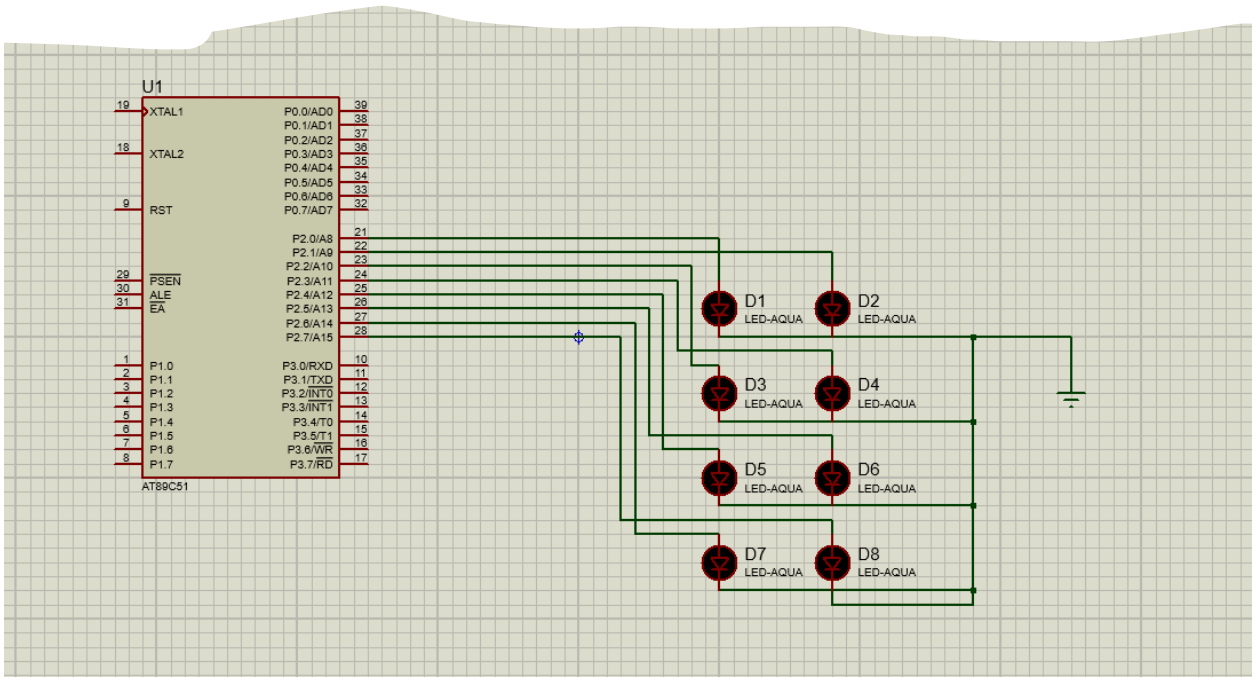
Lab 1 Assignment

Q.1

```
#include<reg52.h>
sbit L1=P2^0;
sbit L2=P2^1;
sbit L3=P2^2;
sbit L4=P2^3;
sbit L5=P2^4;
sbit L6=P2^5;
sbit L7=P2^6;
sbit L8=P2^7;

void delay(int);
void main(){

        while(1){
                L1=0,L2=0,L3=0,L4=0,L5=0,L6=0,L7=0,L8=0;
                L1=1;
                delay(100);
                L1=0;
                L2=1;
                delay(100);
                L2=0;
                L3=1;
                delay(100);
                L3=0;
                L4=1;
                delay(100);
                L4=0;
                L5=1;
                delay(100);
                L5=0;
                L6=1;
                delay(100);
                L6=0;
                L7=1;
                delay(100);
                L7=0;
                L8=1;
                delay(100);
                L8=0;
                delay(100);
```

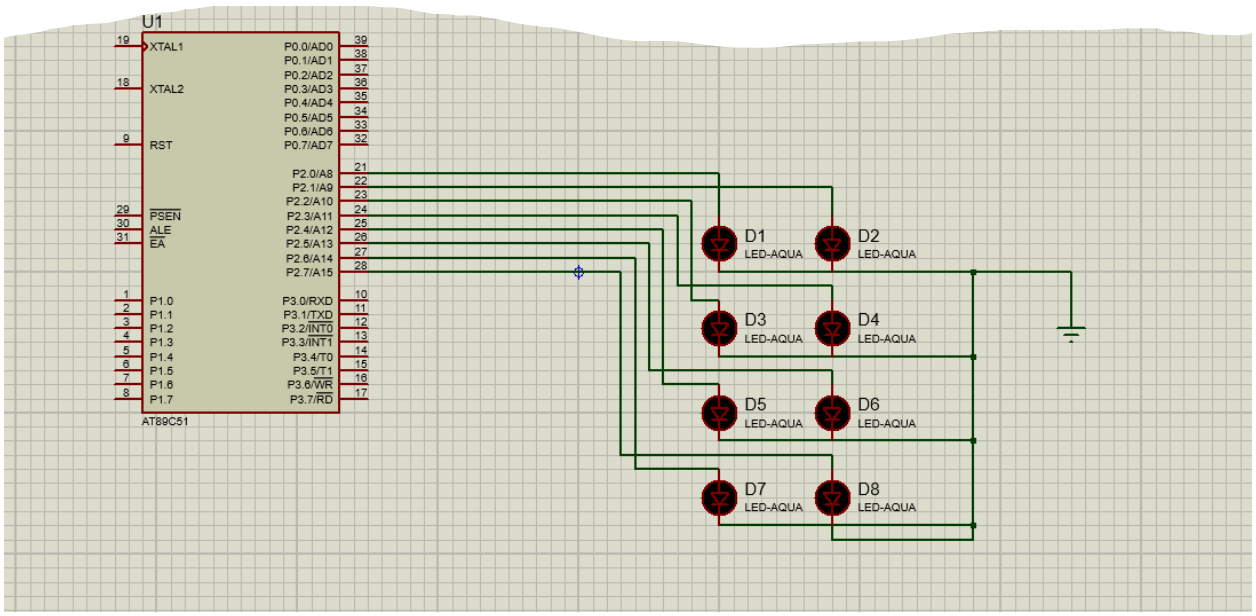
```
        }
}
void delay(int x){
        int i,j;
        for(i=0;i<x;i++){
                for(j=0;j<100;j++);

        }
}
```



Q.2

```
#include<reg52.h>
#define L P2
void delay(int);
void main(){
        int i;
        while(1){
                L=0;
                for(i=0;i<4;i++){
                        L=L<<2;
                        L=L|3;
```

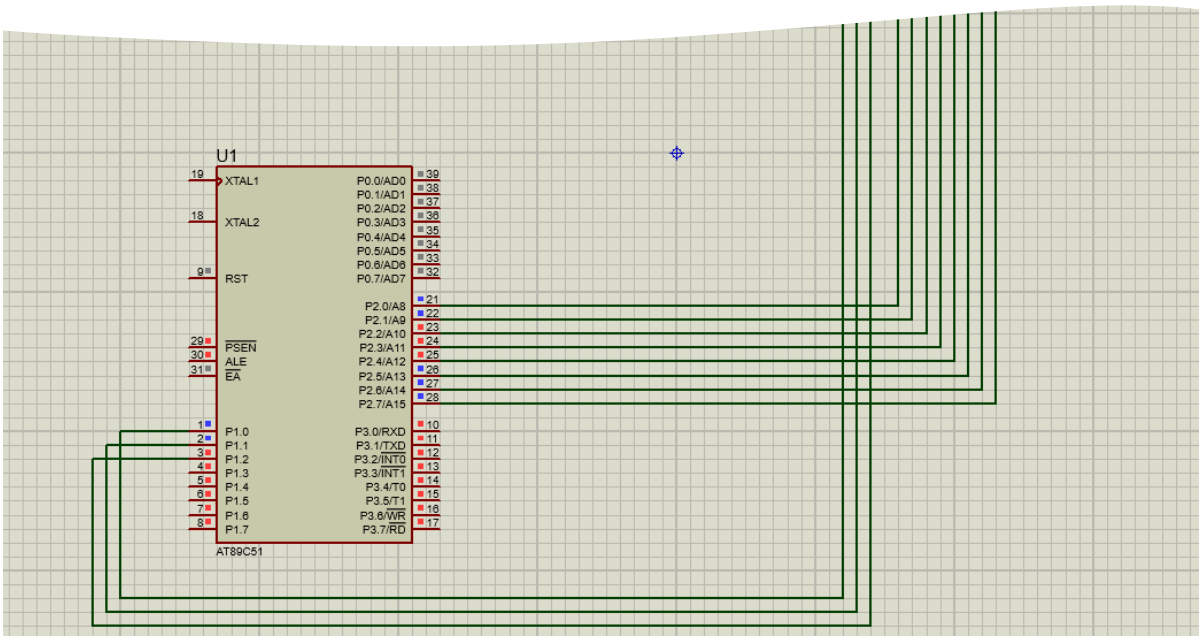
```
                delay(100);
            }
                for(i=0;i<4;i++){
                L=L<<2;

                delay(100);
            }
        }
}
void delay(int x){
        int i,j;
        for(i=0;i<x;i++){
            for(j=0;j<100;j++);

        }
}
```



Lab 2 Assignment

```
#include<reg51.h>
sbit rs=P1^0;
sbit rw=P1^1;
sbit e=P1^2;

void delay(unsigned int);
void cmd(unsigned char);
void dat(unsigned char);

void main(void){
        unsigned char ch[]="Daksh Ladha";
        unsigned char ch1[]="2021UCP1390";
        unsigned int i,j,k;
        cmd(0x38);
        cmd(0x01);
        cmd(0x0c);
        cmd(0x83);
        cmd(0x06);

        for(i=0;ch[i]!='\0';i++){
                dat(ch[i]);
        }


cmd(0xc3);
for(j=0;j<ch1[j]!='\0';j++)
{
        dat(ch1[j]);
}
        while(1){
                for(k=0;k<16;k++){
                        cmd(0x1c);
                }

        }

}

void delay(unsigned int t){
        unsigned int i,j;
```

```
        e=1;
        for(i=0;i<t;i++)
        for(j=0;j<1275;j++);
                        e=0;
}

void cmd (unsigned char ch){
        rs=0;
        rw=0;
        P2=ch;
        delay(20);
}
void dat(unsigned char ch){
        rs=1;
        rw=0;
        P2=ch;
        delay(20);

}
```



Lab 3 Assignment

```
#include<reg51.h>
void delay(unsigned int t);
void main()
{
	unsigned int ch[]={0xC0,0xF9,0xA4,0xB0,0x99,0x92,0x82,0xF8,0x80,0x90};
	unsigned int ch2[]={0x90,0x80,0xF8,0x82,0x92,0x99,0xB0,0xA4,0xF9,0xC0};
	unsigned int i,j,n;
	P3=0xc0;
	P2=0xc0;
	n=0;
	while(1)
	{
		P3=0xc0;
		P2=0xc0;
		for(j=0;j<10;j++)
		{
			for(i=0;i<10;i++)
			{
			P3=ch[i];
			delay(50);
			}
		if(j!=10)
			P2=ch[j+1];
		}

		P3=0x90;
		P2=0x90;
		for(j=0;j<10;j++)
		{
			for(i=0;i<10;i++)
			{
			P3=ch2[i];
			delay(50);
			}
		if(j!=10)
			P2=ch2[j+1];
		}
	}
}
```

```
void delay(unsigned int t)
{
        unsigned int i,j;
        for(i=0;i<t;i++)
        for(j=0;j<1275;j++);
}
```