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CLASS:- B.E - 4
ROLL NO:- 04
BATCH:- A

EXPERIMENT 1

SOURCE CODE:

Copy:

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int i,j,r;
    FILE *f1,*f2;
    f1=fopen("Image1.bmp","rb+");
    f2=fopen("image2.bmp","wb+");
    for(i=0;i<1078;i++)
    {
        j=fgetc(f1);
        fputc(j,f2);
    }
    while(!feof(f1))
    {
        r=getc(f1);
        fputc(r,f2);
    }
    fclose(f1);
    fclose(f2);
    getch();
}
```

Negation:

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int i,j,r;
    FILE *f1,*f2;
    f1=fopen("Image1.bmp","rb+");
    f2=fopen("image2.bmp","wb+");
    for(i=0;i<1078;i++)
    {
        j=fgetc(f1);
        fputc(j,f2);
    }
    while(!feof(f1))
    {
        r=255-getc(f1);
```

```

        fputc(r, f2);
    }
    fclose(f1);
    fclose(f2);
    getch();
}

```

Threshold:

```

#include<stdio.h>
#include<conio.h>
void main()
{
    int i,j,r;
    FILE *f1,*f2;
    f1=fopen("Image1.bmp","rb+");
    f2=fopen("image2.bmp","wb+");
    for(i=0;i<1078;i++)
    {
        j=fgetc(f1);
        fputc(j,f2);
    }
    while(!feof(f1))
    {
        r=getc(f1);
        if(r>150){
            fputc(255,f2);
        }else{
            fputc(0,f2);
        }
    }
    fclose(f1);
    fclose(f2);
    getch();
}

```

Double Threshold:

```

#include<stdio.h>
#include<conio.h>
void main()
{
    int i,j,r;
    FILE *f1,*f2;
    f1=fopen("Image1.bmp","rb+");
    f2=fopen("image2.bmp","wb+");
    for(i=0;i<1078;i++)

```

```

    {
        j=fgetc(f1);
        fputc(j,f2);
    }
    while(!feof(f1))
    {
        r=getc(f1);
        if(r>100 && r<200){
            fputc(255,f2);
        }else{
            fputc(0,f2);
        }
    }

    fclose(f1);
    fclose(f2);
    getch();
}

```

Contrast Stretching:

```

#include <stdio.h>
#include <conio.h>
#include<math.h>
void main()
{
    FILE *in, *out;
    int i,j,k,m4,x1,x2,y1,y2;
    double m,m1,m2,m3;
    clrscr();
    in = fopen("C:/Users/sakec/Desktop/flo.BMP", "rb+");
    out = fopen("C:/Users/sakec/Desktop/contrast.BMP", "wb+");
    printf("Enter the value of a and b");
    scanf("%d%d",&x1,&y1);
    printf("Enter the value of s1 and s2");
    scanf("%d%d",&x2,&y2);
    m1=(y1-0)/(x1-0);
    m2=(y2-y1)/(x2-x1);
    m3=(255-y2)/(255-x2);
    for(i=0;i<1078;i++)
    {
        j=fgetc(in);
        fputc(j,out);
    }
    while (!feof(in))
    {
        k=fgetc(in);

```

```
    if(k<=x1 && k>=0)
    {
        m=m1*k;
    }
    else if(k<=y2 && k>=x1)
    {
        m=m2*(k-x1)+x2;
    }
    else
    {
        m=m3*(k-y1)+y2;
    }
    m4=floor(m);
    fputc(m4, out);
}
fclose(in);
fclose(out);
printf("success");
getch();
}
```

OUTPUT:
ORIGINAL IMAGE:



NEGATION:



COPY IMAGE:



THRESHOLD: th= 150:



Threshold between 100 and 200:



Contrast : values(170 180 200 210)

