PROGRAM 1: Develop a C program to perform arithmetic operations (addition, subtraction, multiplication, division and remainder) on two integers using pointers.

Input:

```c
#include <stdio.h>
#include <conio.h>
int main()
{
 int num1, num2;
 int *ptr1, *ptr2;
 int sum, sub, mult;
 float div;
 clrscr();
 printf("enter the first number: \n");
 scanf("%d", &num1);
 printf("enter the second number: \n");
 scanf("%d", &num2);
 ptr1=&num1;
 ptr2=&num2;
 sum=(*ptr1)+(*ptr2);
 sub=(*ptr1)-(*ptr2);
 mult=(*ptr1)*(*ptr2);
 div=(*ptr1)/(*ptr2);
 printf("sum = %d\n",sum);
 printf("subtraction = %d\n",sub);
 printf("multiplication = %d\n",mult);
 printf("division = %f\n",div);
 getch();
 return (0);
}
```

Output:

```
enter the first number:
9
enter the second number:
3
sum = 12
subtraction = 6
multiplication = 27
division = 3.000000
```

PROGRAM 2: Illustrate pointers in swapping two numbers.

Input:

```
#include <stdio.h>
#include <conio.h>
void swap(int*, int*);
int main()
{
 int num1, num2;
 clrscr();
 printf("\nenter the value of num1: ");
 scanf("%d", &num1);
 printf("\nenter the value of num2: ");
 scanf("%d", &num2);
 printf("\nbefore swapping: num1 = %d\tnum2 = %d", num1, num2);
 swap(&num1, &num2);
 printf("\nafter swapping:  num1 = %d\tnum2 = %d", num1, num2);
 getch();
 return (0);
}
void swap(int*x, int*y)
{
 int t;
```

```
t=*x;

*x=*y;

*y=t;

}
```

Output:

```
enter the value of num1: 3

enter the value of num2: 8

before swapping: num1 = 3      num2 = 8
after swapping:  num1 = 8      num2 = 3
```

PROGRAM 3: Demonstrate how to read data from the keyboard, write it to a file called BMSCE, again read the same data from the BMSCE file, and display it on the screen/console.

Input:

```c
#include <stdio.h>

#include <conio.h>

int main()

{

FILE *fp;

char feedback[100];

int i;

clrscr();

fp = fopen("bmsce.txt","w");

printf("\n enter something about bmsce: ");

gets(feedback);

fprintf(fp,"%s",feedback);

fp = fopen("bmsce.txt", "r");

printf("data read: ");
```
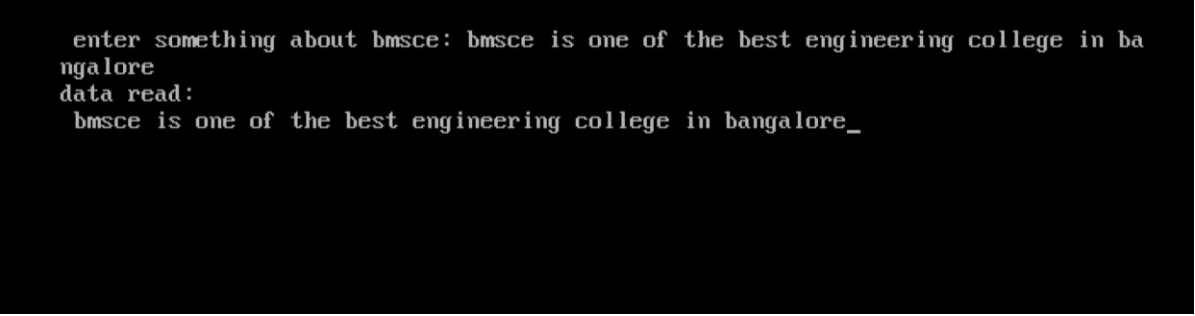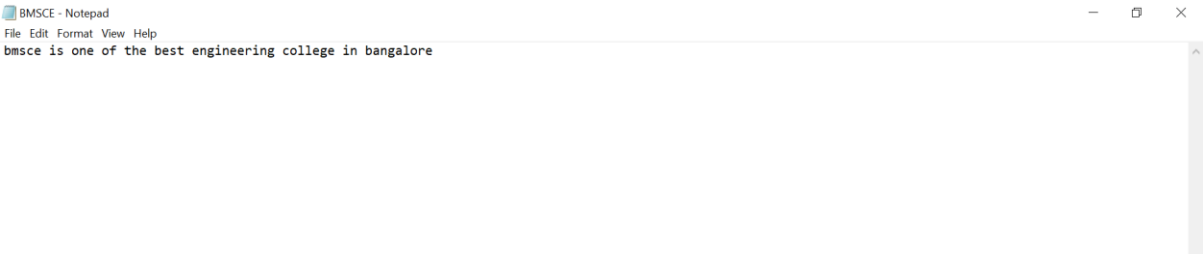
```c
fscanf(fp,"%s",feedback);

printf("\n %s", feedback);

fclose(fp);

getch();

return(0);

}
```

Output:


```
   enter something about bmsce: bmsce is one of the best engineering college in ba
ngalore
data read:
 bmsce is one of the best engineering college in bangalore_
```


BMSCE - Notepad

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bmsce is one of the best engineering college in bangalore