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# Batch: CS 48

LAB EXERCISE 10

**Code:**

#include<stdio.h>

#define size 3

int buffer[size];

int in,out,counter=0;

void producer(int item)

{

if(counter==size)

{

printf("\nThe Buffer is Full!");

return;

}

else

{

buffer[in]=item;

in=(in+1)%size;

counter++;

}

}

void consumer()

{

if(counter==0)

{

printf("\nThe Buffer is Empty!");

return;

}

else

{

buffer[out]=0;

out=(out+1)%size;

counter--;

}

}

void display()

{

printf("\nBUFFER -\n");

for(int i=0;i<size;i++)

printf("%d\t",buffer[i]);

printf("\nIn:%d\n",in);

printf("Out:%d",out);

}

int main()

{

int option,a;

printf("MENU -\n");

printf("1.Producer\n2.Consumer\n3.Exit");

do

{

printf("\nEnter your choice:");

scanf("%d",&option);

switch(option)

{

case 1: printf("Produce an integer:");

scanf("%d",&a);

producer(a);

display();

break;

case 2: consumer();

display();

break;

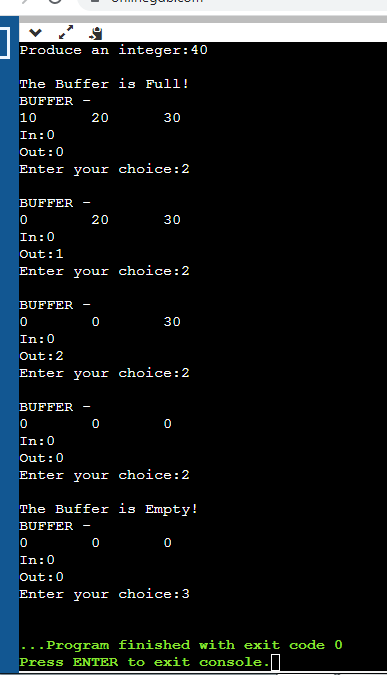
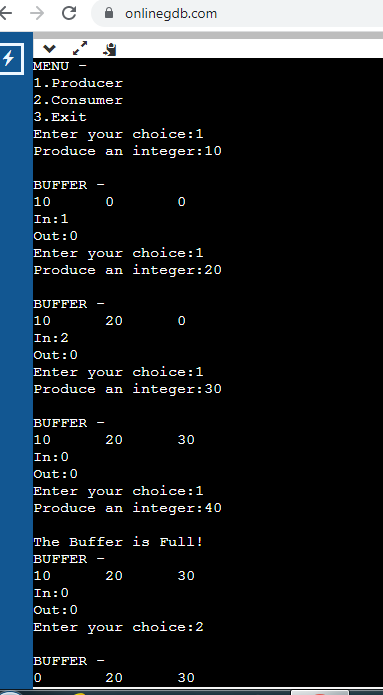
}

}while(option!=3);

return 0;

}

**Output -**

****