16.Design of 4 stage pipeline for multiplication and division of two numbers using any high level language.

// 4 stage pipelining

#include<stdio.h>

int main(){

int counter=0;

int input;

int num1,num2;

int op;

int res;

int ins;

int performance\_measure=0;

printf("\n Enter 1st value: ");

scanf("%d",&num1);

counter+=1;

printf("\n Enter the 2nd value: ");

scanf("%d",&num2);

counter+=1;

printf("\n Enter the option: \n1)Addition\n2)Subraction\n3)Multiplication\n4)Division");

scanf("%d",&op);

switch(op){

case 1:

printf("Performing addition operation");

res=num1+num2;

counter+=1;

break;

case 2:

printf("Performing subraction operation");

res=num1-num2;

counter+=1;

break;

case 3:

printf("Performing multiplication operation");

res=num1\*num2;

counter+=1;

break;

case 4:

if(num2==0){

printf("\n Denominator can't be zero");

}

else{

printf("Performing division operation");

res=num1/num2;

counter+=1;

break;

}

default:

printf("Invalid case...");

counter+=3;

break;

}

printf("\n CYCLE VALUE IS : %d",counter);

printf("Enter the no.instruction");

scanf("%d",&ins);

performance\_measure=ins/counter;

printf("\n Performance Measure is: %d",performance\_measure);

return 0;

}