#include<stdio.h>

int binaryproduct(int, int);

int main()

{

long binary1, binary2, multiply = 0;

int digit, factor = 1;

printf("enter the first binary number: ");

scanf("%1d", &binary1);

printf("enter the second binary number: ");

scanf("%1d", &binary2);

while (binary2 != 0)

{

digit = binary2 % 10;

if (digit ==1)

{

binary1 = binary1 \* factor;

multiply = binaryproduct(binary1, multiply);

}

else

binary1 = binary1 \* factor;

binary2 = binary2 / 10;

factor = 10;

}

printf("product of two binary numbers: %1d", multiply);

return 0;

}

int binaryproduct(int binary1, int binary2)

{

int i = 0, reaminder = 0, sum[20];

int binaryprod = 0;

while (binary1 != 0 || binary2 != 0)

{

sum[i++] =(binary1 % 10 + binary2 % 10 + remainder) % 2;

remainder =(binary1 % 10 + binary2 % 10 + remainder) / 2;

binary1 = binary1 / 10;

binary2 = binary2 / 10;

}

if (remainder != 0)

sum[i++] = remainder;

--i;

while (i >= 0)

binaryprod = binaryprod \* 10 + sum[i--];

return binaryprod;

}

