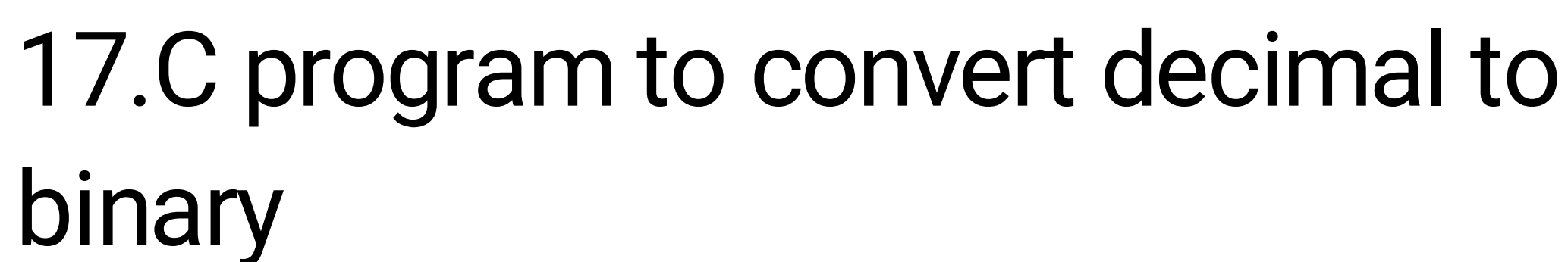


15. Half adder using NAND gates in Logisim



```
#include<stdio.h>
#include<conio.h>
```

{

```
int n,binary=0,base=1,rem;
```

```

printf("enter decimal number:");
scanf("%d",&n);
while(n!=0)
{
    rem = n % 2;
    binary = binary + (base*rem);
    base = base * 10;
    n = n / 2;
}
printf("binary number is:%d",binary);
}

```

Output:

```

enter decimal number:4
binary number is:100
-----
Process exited after 2.018 seconds with return value 0
Press any key to continue . . . |

```

18.C program to convert decimal to octal

Code:

```

#include<stdio.h>
#include<conio.h>
int main()
{
    int n,oct=0,rem,base=1;

```

```
printf("enter decimal number:");  
scanf("%d",&n);  
while(n!=0)  
{  
    rem=n%8;  
    oct=oct+(rem*base);  
    base=base*10;  
    n=n/8;  
}  
printf("octal number is %d",oct);  
}
```

Output:

```
enter decimal number:34  
octal number is:42  
-----  
Process exited after 1.8 seconds with return value 0  
Press any key to continue . . . |
```

19.C program to convert binary to decimal

Code:

```
#include<stdio.h>
```

```

#include<conio.h>

int main()
{
    int binary,dec=0,rem,base=1;
    printf("enter binary number:");
    scanf("%d",&binary);
    while(binary)
    {
        rem = binary % 10;
        dec = dec + (rem * base);
        base = base * 2;
        binary = binary / 10;
    }
    printf("enter decimal number is %d",dec);
}

```

Output:

```

enter binary number:000
decimal number is:0
-----
Process exited after 4.141 seconds with return value 0
Press any key to continue . . . |

```

16.C Program to calculate the cache hit ratio

```

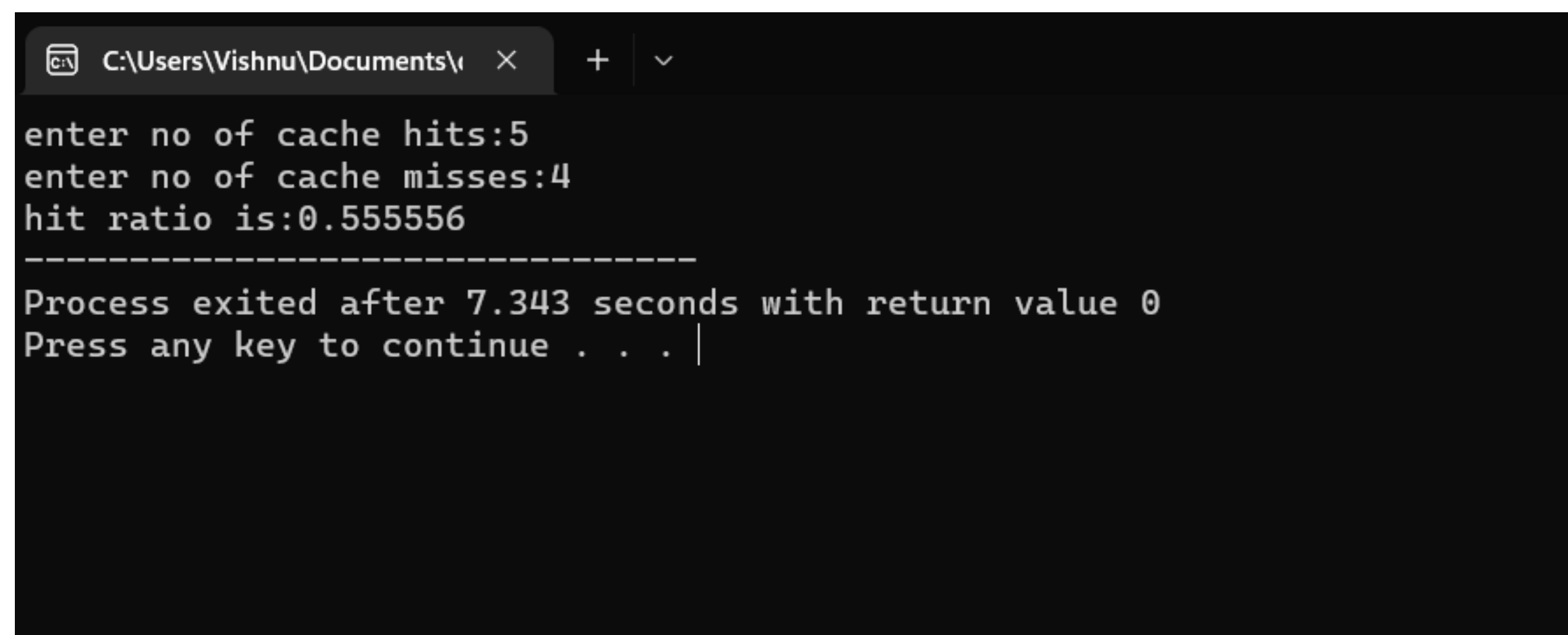
#include<stdio.h>

```

```
#include<conio.h>

int main()
{
    float ch,cm,chr;
    printf("enter no of cache hits:");
    scanf("%f",&ch);
    printf("enter no of cache misses:");
    scanf("%f",&cm);
    chr = ch / (ch + cm);
    printf("hit ratio is:%f",chr);
}
```

Output:



```
C:\Users\Vishnu\Documents\
enter no of cache hits:5
enter no of cache misses:4
hit ratio is:0.555556
-----
Process exited after 7.343 seconds with return value 0
Press any key to continue . . . |
```