Code:

clc

clear all

close all

length = input('Enter length of number of bits of power 2 : ');

walsh = hadamard(length)

codelength = input('Enter codelength required : ');

userno = input('Enter the number of users required : ');

orth\_mat = walsh(1:userno,1:codelength)

Output:

Enter length of number of bits of power 2 : 8

walsh =

1 1 1 1 1 1 1 1

1 -1 1 -1 1 -1 1 -1

1 1 -1 -1 1 1 -1 -1

1 -1 -1 1 1 -1 -1 1

1 1 1 1 -1 -1 -1 -1

1 -1 1 -1 -1 1 -1 1

1 1 -1 -1 -1 -1 1 1

1 -1 -1 1 -1 1 1 -1

Enter codelength required : 4

Enter the number of users required : 6

orth\_mat =

1 1 1 1

1 -1 1 -1

1 1 -1 -1

1 -1 -1 1

1 1 1 1

1 -1 1 -1