```
//Read a graph as adjacency matrix and and print it and find
//out indegree,outdegree and total degree of each node

#include<stdio.h>
int mat[10][10];
void display(int);
void degree(int);
int main()
{
int i, j,n;
char reply;
printf("How many vertices:");
scanf("%d",&n);
for ( i = 0 ; i < n ; i++ )
{
for ( j = 0 ; j < n ; j++ )
{

printf("\n Is there edge between %d & %d ? (Y/N) :",i+1,j+1);
scanf(" %c", &reply);
if ( reply == 'y' || reply == 'Y' )
mat[i][j] = 1;
else
mat[i][j] = 0;
}
}
display(n);
degree(n);
return 0;
}

void display(int size)
{
int i,j;
printf("\n-----------------------------------------------------------------\n");
printf("\nAdjecency Matrix is:\n\n");
for(i=0;i<size;i++)
{
for(j=0;j<size;j++)
{
printf("%d\t",mat[i][j]);
}
printf("\n");
}
}
```

```
void degree(int n)
{
int i,j,indegree=0,outdegree=0;
for (i = 0; i < n ; i++ )
{

for(j=0;j<n;j++)
{
if (mat[i][j]==1)
outdegree++;
if (mat[j][i]==1)
indegree++;

}

printf("\nIndegree, Outdegree and Total Degree of vertex is %d, %d,
%d",i+1,indegree,outdegree,indegree+outdegree);

indegree=0;
outdegree=0;

} // for
printf("\n\n");
}
```