كلية الهندسة بشبرا
BENHA UNIVERSITY
FACULTY OF ENGINEERING AT SHOUBRA

Premier League

PREMIER LEAGUE

	Club	MP	W	D	L	P
1	LIVERPOOL	14	12	2	0	
2	NEWCASTLE	15	10			
3	MAN CITY					
4						

PREMIER LEAGUE STANDING

OUR TEAM

Supervisor

DR: Abdallah Saad
Eng: Mohamed Abdelmged

1- Khaled Ramadan Mohamed
2- Esraa Said Ali
3- Mariam Mohamed Fotouh
4- Karem Taha Abdelfatah
5- Mohamed Hosny Hegazy
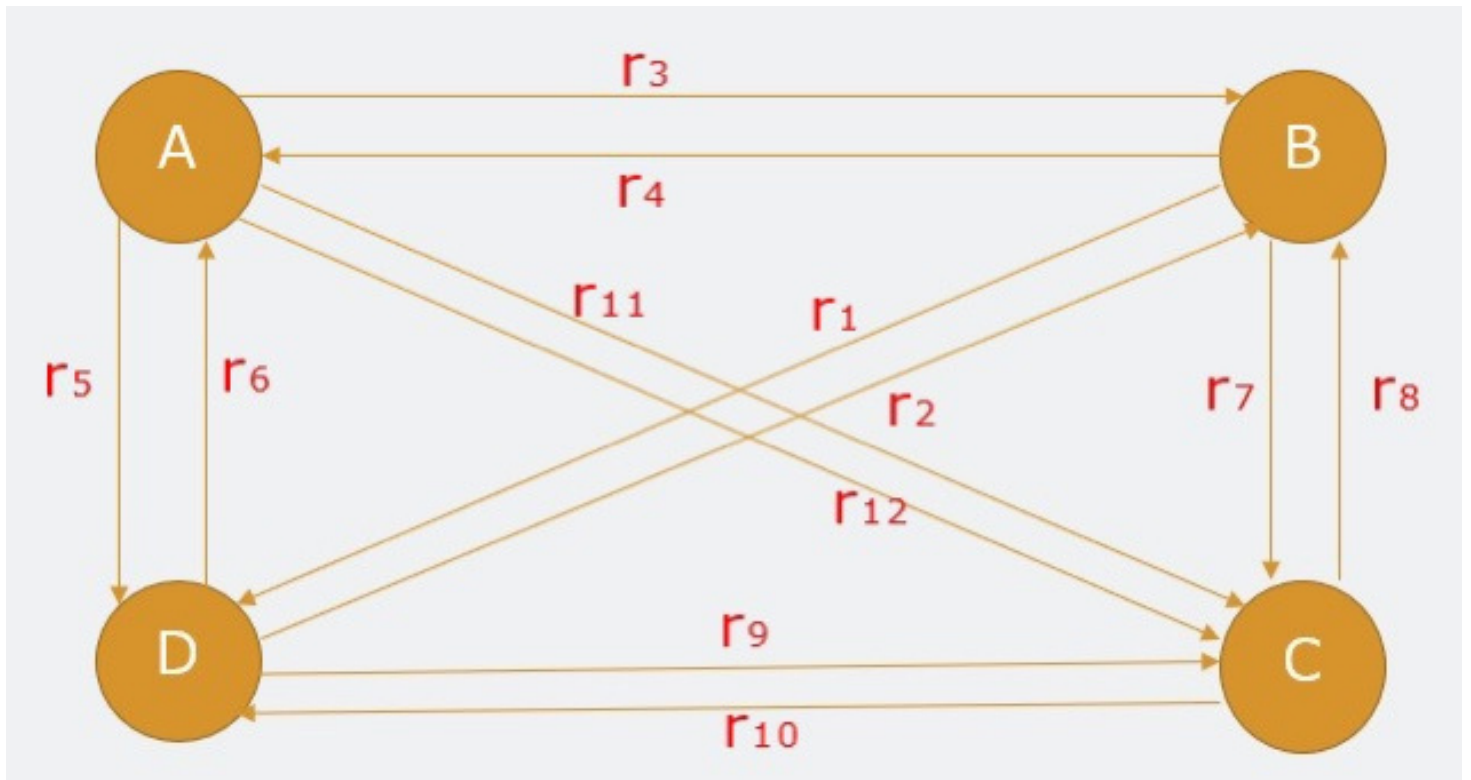
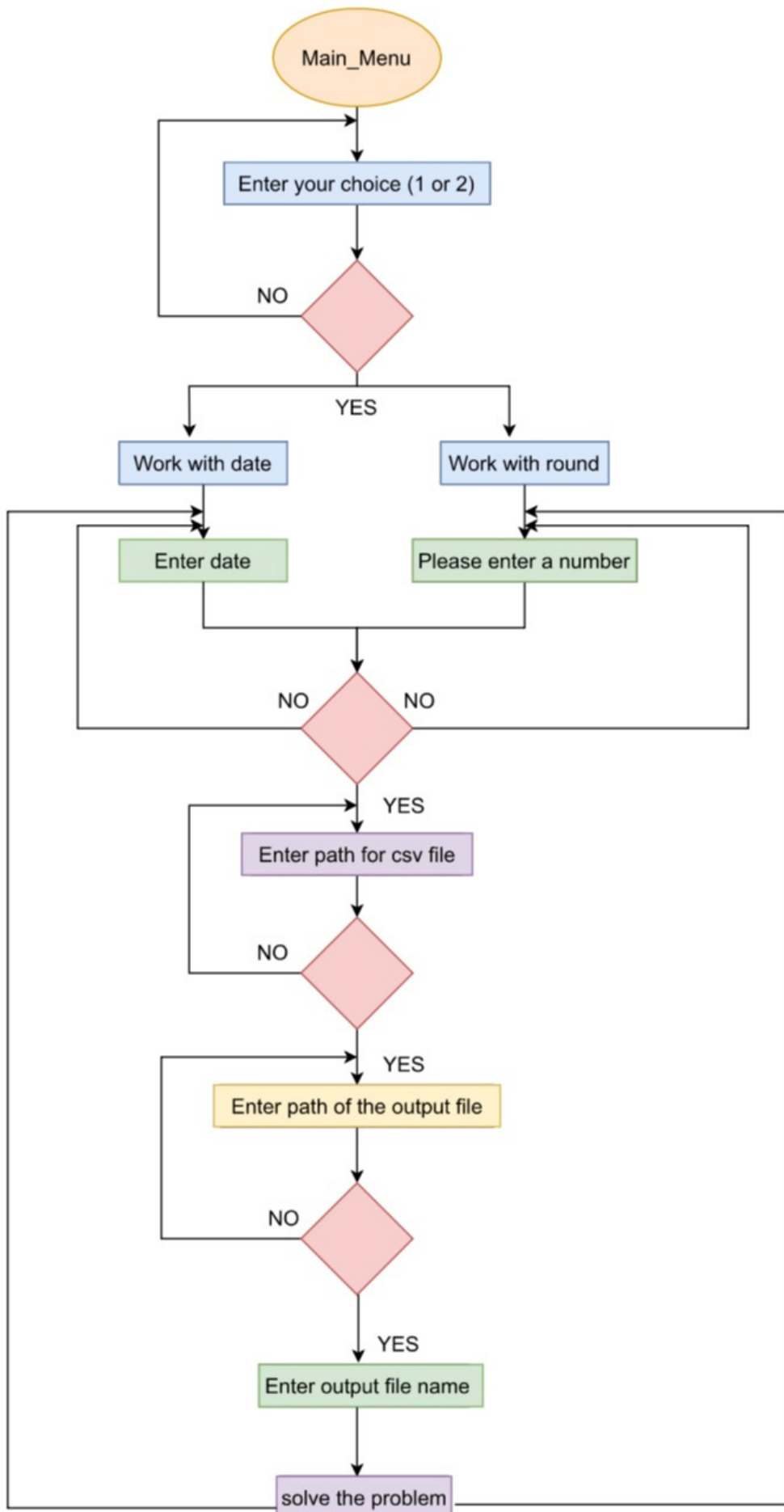# Representation for graph

We have complete graph , there are (rn) on all edges and it means Round , Each round is defined by its data

🔗 Flow Chart

Main_Menu

Enter your choice (1 or 2)

NO

YES

Work with date

Work with round

Enter date

Please enter a number

NO

NO

YES

Enter path for csv file

NO

YES

Enter path of the output file

NO

YES

Enter output file name

solve the problem

Complexity for our functions

Solve : generate csv file and solving the problem and return output

Solution : representation of graph and traversing it and calculation of data
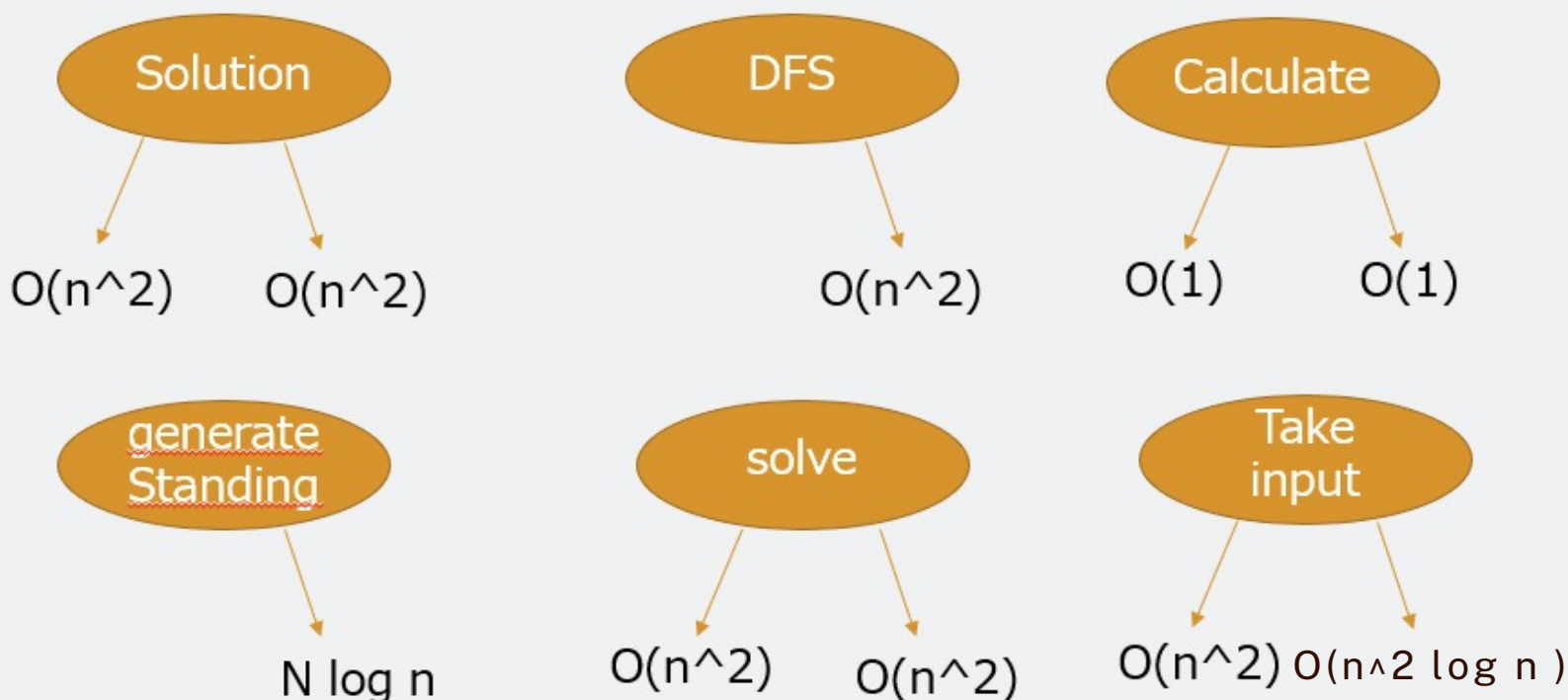
Take input : take input from csv file

Generate standing : Preserves the location of all data if it is modified

Calculate : Calculate who is the winner and who is the loser, or there is a tie

DFS : Traverse over graph and calculate result

we represent time and space complexity
Time (Right) , Space (Left) .

Solution		DFS	Calculate	
$O(n^2)$	$O(n^2)$	$O(n^2)$	$O(1)$	$O(1)$

generate Standing	solve		Take input	
N log n	$O(n^2)$	$O(n^2)$	$O(n^2)$	$O(n^2 \log n)$

THE END!!!