

## Homework - Aggregation

PART I Aggregation program - Filename: Week9YourNameAggPlayer

Step 1 - Define 2 classes. Above int main()

Create a class called PLAYER

string name

getName()

setName( string )

default constructor - set name to 'Unknown'

parm constructor - set name to one name on list of names below

Create a class Called TEAM

Use pointers: player \* ptrPlayer1.... \* ptrPlayer7 ... OR ... Use an Array of players.... ( Hard way or Easy - You choose )

( Aggregation - use one pointer or index for each player )

printAllNames()

default constructor - assign each pointer to a player to null/ or array player to unassigned...

Step 2 - Declare instances of classes. In int main()

Instantiate 7 players

Use parm constructor on the first 4 player names

Use the default constructor then use setName on the last 3 player names

Use the following names: George, Ivan, Hang, Tuyet, Sue, Victoria and Tumbo

Instantiate two teams: basket ball Team , Soccer Team

Step 3 - Use classes. In int main()

Set the last 3 player names using setName

Add any 5 of the player to the basket ball team, one at a time (5 statements - pass player pointer )

Add all 7 of the players to the soccer team ( 7 statements - pass player pointer )

Print out all the members' names in the basket ball team, use printAllNames()

Print out all the members' names in the soccer team, use printAllNames()

Delete the Basket ball team

Print out all names in the Basket Ball team

Delete the Soccer Team.

Print out all player names.

Delete each player

Part II - Answer the following questions

- 1) Why are there relationships in a program?
- 2) What is the purpose of UML Relationship Diagrams?
- 3) How are composition and aggregation similar?
- 4) How are composition and aggregation different?