

## **Football Parallel Array Assignment**

**(60 Points)**

Google Definition: In computing, a **parallel array** is a data structure for representing **arrays** of records. It keeps a separate, homogeneous **array** for each field of the record, each having the same number of elements. Then, objects located at the same index in each **array** are implicitly the fields of a single record.

In this project you will be storing a list of football players in several parallel arrays. You will present the user repeatedly with a menu that they can use to manipulate and query the list or exit the program.

The attributes of the players should be stored in these lists: **(array creation - 6 points)**

1. Jersey numbers – an array of ints
2. Player fences – an array of chars (O or D)
3. Tackles – an array of ints
4. Rushing yards – array of ints
5. Touchdowns – array of ints
6. Passing yards – array of ints

There will be at most 100 players entered. Do not let the user enter more.

You need to keep track of how many players have been entered. Initialize this variable to 0.

When the program starts the lists are “empty”

You should have a menu that looks like this: **(2 points)**

```
A - Add a player  
F - Find a player  
D - Delete a player  
E - Exit
```

**Add** - should prompt the user to enter values for the new player to be added to the lists. The attributes entered should be added to the next available slot in the list. The variable that you are using to keep track of the number of players entered should be incremented. Be sure that you do not allow more than 100 players to be entered. **(20 points)**

**Find** – should prompt the user for the jersey number of the player to find. If the jersey number is found in the list all of the attributes of that player should be neatly displayed. If the jersey number is not found in the list the message “Player not found” should be displayed. **(15 points)**

**Delete** - should prompt the user for the jersey number of the player to delete. If the jersey number is found in the list the player should be deleted from the list and a message that says “Player Deleted should be shown”. If the jersey number is not found in the list the message “Player not found” should be displayed. To delete a player the player the count of the number of players should be decremented and all of the array items after the deleted player must be shifted to the left to fill the empty space. **(15 points)**

**Exit** - Should make the program end. **(2 points)**