Problem definition:  
XYZ Railways have decided to automate the process of platform allocation. The menu based system performs the following operations

1. When a train arrives, the system allocates a platform from available platforms on inputting train number.  
2. When a train leaves, the system deallocates the particular platform on inputting the train number  
3. The system also displays the summary of occupied and free platforms at any point of time.

Data Structure:

1. Use 2 arrays to maintain the details of 10 platforms and their status  
2. First array stores the Platform Number   
a. The array elements should be initialized with a 2 digit platform number when the program starts.  
3. Second array stores the Train Number   
a. All the array elements should be initialized to 0 when the program starts.  
b. The Array elements can store a 4 digit train number.

[The 2 arrays are related such a way that if Array1 [0] stores the Platform Number of first platform then Array2 [0] will store the Train Number arrived at the first platform, 0 if free]

Screen Design Input and Validation:

1) Menu:

Input:  
1. Choice   
Validation:  
1. Accept choices from 1 to 4

2) Platform Allocation Screen:  
The platform is allocated automatically by the system for a particular train number based on the availability.

Input:  
1. Train Number

Validation:  
1. Train Number should be a 4 digit number.  
2. Display error message if no platform is available

3) Platform Deallocation Screen:  
When a train leaves the platform is deallocated automatically by the system.

Input:  
1. Train Number

Validation:  
1. Train number should be 4 digits.  
2. Display error message if platform is not allocated for the input train number.

Email me if u want more