- Finally, the program checks the `found` flag. Since `found` is `1` (true), it skips printing `"Registration number 20142010 not found in the list."`

Therefore, the program successfully identifies and confirms that `20142010` exists in the list at index

```
        Printf("Registration number %d found at index %d.\n", target, i);
        found = 1;
        break;
    }
  }
if (!found) {
    Printf ("Registration number %d not found in list.\n", target);
}
return 0;
}
```

Explanation of the code:

1) The 'regNumbers' array contains the list of registration numbers.
2) 'target' is the registration number we are searching for.
3) 'n' is the total number of elements in array.
4) Iterate through each element of the array.
5) If the current element matches the 'target', Print its index and set the 'found' flag to '1'.
6) If the loop completes without finding the target, Print that the registration number is not found.
7) The Program will Print the index of the found registration number or indicate that the registration is not Present.

Output: Registration number 20142010 found at index 4.

Date:- 27/02/24

Example 1:-

A+B*C

Step	Input	Stack	Output
1.)	A+B*C	-	-
2.)	+B*C	-	A
3.)	B*C	+	A
4.)	*C	+	AB
5.)	C	+*	AB
6.)		+*	ABC
7.)		+	ABC*
8.)			ABC*+

Find postfix expression: ABC*+

2) (A+B)*(C-D)

Step	Input	stack	output
1	(A+B)*(C-D)	-	
2	A+B)*(C-D)	(	
3	+B)*(C-D)	(	A
4	B)*(C-D)	(+	A
5	)*(C-D)	(+	AB
6	*(C-D)		AB+
7	(C-D)	*	AB+
8	C-D)	*(	AB+
9	-D)	*(-	AB+C
10	D)	*(-	AB+C
11	)	*	AB+CD-
12			AB+CD-*

Final Postfix Expression: AB+CD-*

Postfix to Infix

1) AB+C

Step	Postfix	Stack
1.)	AB+C*	C]
2.)	B+C*	[A]
3.)	+C*	[A,B]
4.)	C*	[A+B]
5.)	*	[A+B]
6.)		[A+B),C]
		[(A+B)*C]

Final Postfix expression [(A+B)*C]

2) ABC*+D-

Step	Postfix	Stack
1.	ABC*+D-	[ ]
2.	BC*+D-	A
3.	C*+D-	A,B
4.	*+D-	A,B,C
5.	+D-	A,(B*C)
6.	D-	[A+B*C)]
7.	-	[[A+(B*C)),D]
8.		[(A+(B*C))-D]

Infix Expression:-

⟶ (A+B*C))-D.

Balancing Parentheis

1) (A+B)*(C-D)

Step	Read Character	Stack
1)	(	[(]
2)	A	[(]
3)	+	[(]
4)	B	[(]
5)	)	[ ]
6)	*	[ ]
7)	(	[(]
8)	(	[(]
9)	-	[(]
10)	D	[(]
11)	)	[ ]

↓ Stack is empty.

So, (A+B)*(C-D) is balanced.

2) {A+(B*C)-D])

Step	Read Character	Stack
1)	{	[{]
2)	A	[{]
3)	+	[{]
4)	(	[{, (]
5)	B	[{, (]
6)	*	[{, (]
7)	C	[{, (]
8)	)	[{]
9)	-	[{]
10)	D	[{]
11)	}	[ ]
12)	)	[)]

↓ Stack Not empty.

So, the equation {A+(B*C)-D]) is not Balanced.