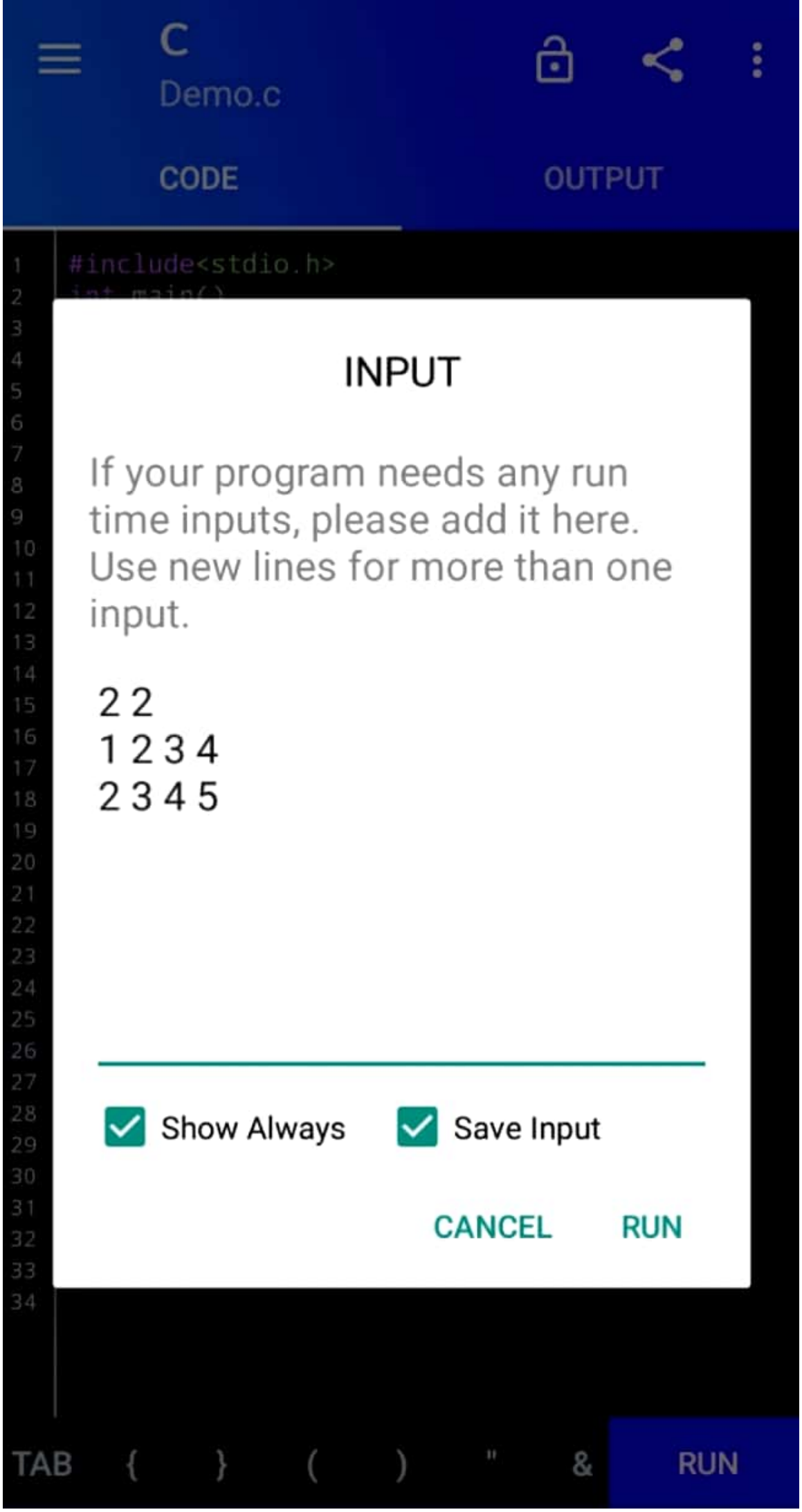
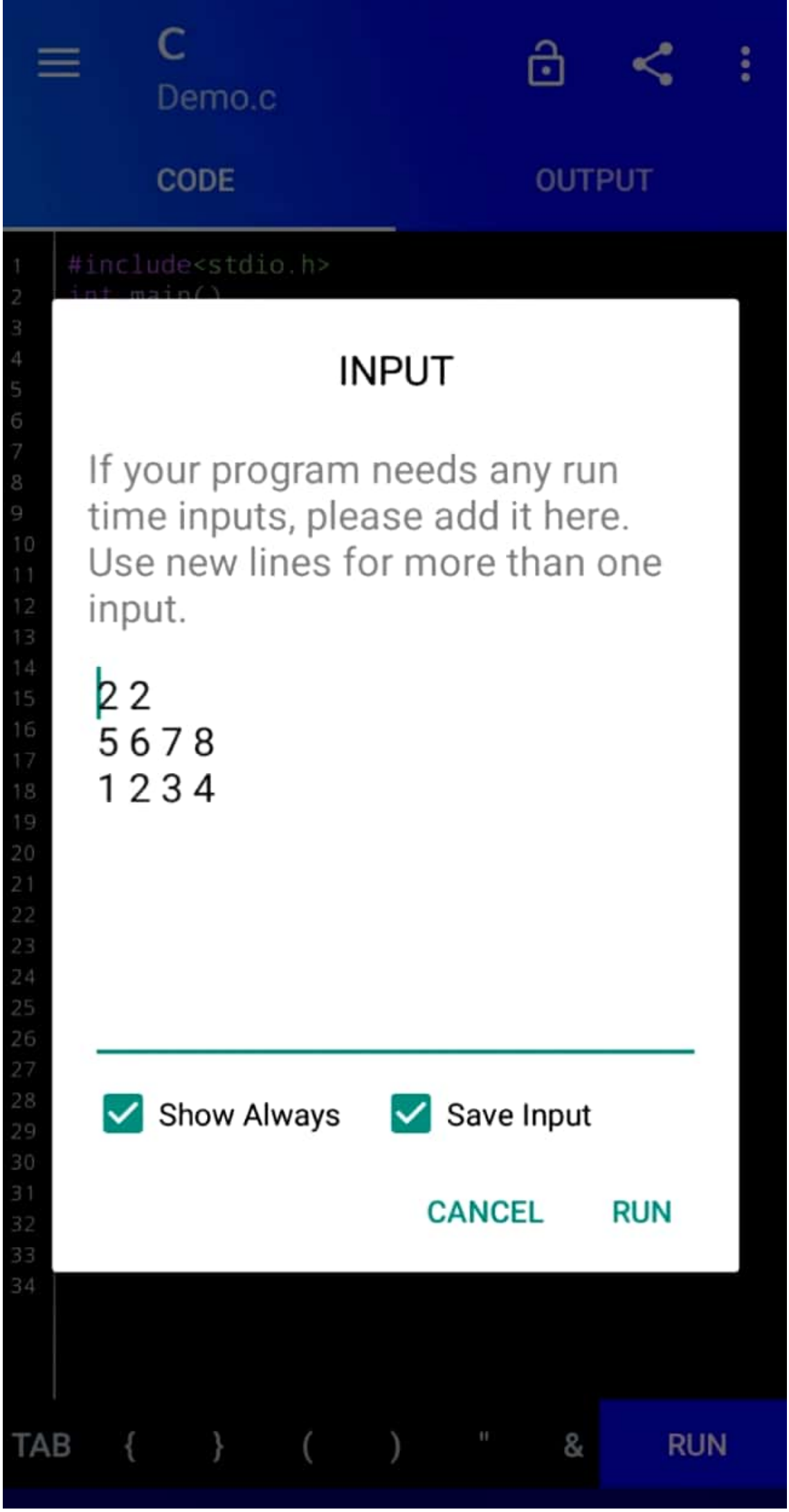
```c
#include<stdio.h>
int main()
{
  int m,n;
  scanf("%d%d",&m,&n);
  int i,j;
  int mat1[m][n],mat2[m][n],mat3[m][n];
  for(i=0;i<m;i++)
  {
    for(j=0;j<n;j++)
    scanf("%d",&mat1[i][j]);
  }
  for(i=0;i<n;i++)
  {
    for(j=0;j<n;j++)
    scanf("%d",&mat2[i][j]);
  }
  for(i=0;i<m;i++)
  {
    for(j=0;j<n;j++)
    {
      mat3[i][j]=mat1[i][j]+mat2[i][j];
    }
  }
  for(i=0;i<m;i++)
  {
    for(j=0;j<n;j++)
    printf("%d",mat3[i][j]);
    printf("\n");
  }
  return 0;
}
```




```
35
79
```

```c
#include<stdio.h>
int main()
{
  int m,n;
  scanf("%d%d",&m,&n);
  int i,j;
  int mat1[m][n],mat2[m][n],mat3[m][n];
  for(i=0;i<m;i++)
  {
    for(j=0;j<n;j++)
    scanf("%d",&mat1[i][j]);
  }
  for(i=0;i<n;i++)
  {
    for(j=0;j<n;j++)
    scanf("%d",&mat2[i][j]);
  }
  for(i=0;i<m;i++)
  {
    for(j=0;j<n;j++)
    {
      mat3[i][j]=mat1[i][j]-mat2[i][j];
    }
  }
  for(i=0;i<m;i++)
  {
    for(j=0;j<n;j++)
    printf("%d",mat3[i][j]);
    printf("\n");
  }
  return 0;
}
```



44
44

Name :- Pooja R Talekar
USN :- 4AL19CS062

Write a C program to implement matrix addition and Substitution.

Algorithum of Matrix Addition :-

Step 1 : Start
Step 2 : Input the order of matrix
Step 3 : Input matrix 1 elements
Step 4 : Input matrix 2 elements
Step 5 : Repeat from i=0 to n
Step 6 : Repeat from j=0 to n
Step 7 : mat 3[i][j] = mat 1[i][j] mat 2[i][j]
Step 8 :- print mat 3
Step 9 :- Stop.

Algorithum for Matrix Substitution

Step 1 :- Start
Step 2 : Input order of matrix
Step 3 :- Input matrix 1 elements
Step 4 : Input matrix 2 elements
Step 5 : Repeat from i=0 to n
Step 6 : Repeat from j=0 to n
Step 7 : mat 3 [i][j] = mat1[i][j] - mat 2 [i][j]
Step 8 : print mat 3
Step 9 : Stop

Flowchart