```
PS E:\7th SEM\CNS\PR_06> cd "e:\7th SEM\CNS\PR_06\" ; if ($?) { g++ pr_06.cpp -o pr_06 } ; if ($?) { .\
pr_06 }

1. ShiftRows Transformation.
2. MixColumns Transformation.
3. AddRoundKey Transformation.
0. Exit .
Enter Your Choice : 1

Enter the No.of rows : 4

Enter the No.of cols : 4

Enter the State Matrix :
state[0][0] = 87
state[0][1] = F2
state[0][2] = 4D
state[0][3] = 97
state[1][0] = 6E
state[1][1] = 4C
state[1][2] = 90
state[1][3] = EC
state[2][0] = 46
state[2][1] = E7
state[2][2] = 4A
state[2][3] = C3
state[3][0] = A6
state[3][1] = 8C
state[3][2] = D8
state[3][3] = 95

State Matrix is :
87 F2 4D 97
6E 4C 90 EC
46 E7 4A C3
A6 8C D8 95

Transformed : ShiftRows :
87 F2 4D 97
4C 90 EC 6E
4A C3 46 E7
95 A6 8C D8

*/
/*
OUTPUT 2 :-
PS E:\7th SEM\CNS\PR_06> cd "e:\7th SEM\CNS\PR_06\" ; if ($?) { g++ pr_06.cpp -o pr_06 } ; if ($?) { .\
pr_06 }

1. ShiftRows Transformation.
2. MixColumns Transformation.
3. AddRoundKey Transformation.
0. Exit .
Enter Your Choice : 2
```

Enter the No.of rows : 4

Enter the No.of cols : 4

Enter the State Matrix :
state[0][0] = 87
state[0][1] = F2
state[0][2] = 4D
state[0][3] = 97
state[1][0] = 6E
state[1][1] = 4C
state[1][2] = 90
state[1][3] = EC
state[2][0] = 46
state[2][1] = E7
state[2][2] = 4A
state[2][3] = C3
state[3][0] = A6
state[3][1] = 8C
state[3][2] = D8
state[3][3] = 95

State Matrix is :
87 F2 4D 97
6E 4C 90 EC
46 E7 4A C3
A6 8C D8 95

Ans Matrix is :
47 40 A3 4C
37 D4 70 9F
94 E4 3A 42
ED A5 A6 BC

*/
/*
OUTPUT 3 :-
PS E:\7th SEM\CNS\PR_06> cd "e:\7th SEM\CNS\PR_06\" ; if ($?) { g++ pr_06.cpp -o pr_06 } ; if ($?) { .\
pr_06 }

1. ShiftRows Transformation.
2. MixColumns Transformation.
3. AddRoundKey Transformation.
0. Exit .
Enter Your Choice : 3

For State Matrix :

Enter the No.of rows : 4

Enter the No.of cols : 4

Enter the State Matrix :
state[0][0] = AC
state[0][1] = 19

```
state[0][2] = 28
state[0][3] = 37
state[1][0] = 77
state[1][1] = FA
state[1][2] = D1
state[1][3] = 5C
state[2][0] = 66
state[2][1] = DC
state[2][2] = 29
state[2][3] = 00
state[3][0] = F3
state[3][1] = 21
state[3][2] = 41
state[3][3] = 6A

State Matrix is :
AC 19 28 37
77 FA D1 5C
66 DC 29 00
F3 21 41 6A

Enter the Key Matrix :
Key[0][0] = 47
Key[0][1] = 40
Key[0][2] = A3
Key[0][3] = 4C
Key[1][0] = 37
Key[1][1] = D4
Key[1][2] = 70
Key[1][3] = 9F
Key[2][0] = 94
Key[2][1] = EF
Key[2][2] = 3A
Key[2][3] = 42
Key[3][0] = ED
Key[3][1] = A5
Key[3][2] = A6
Key[3][3] = BC

Key Matrix is :
47 40 A3 4C
37 D4 70 9F
94 EF 3A 42
ED A5 A6 BC

Ans Matrix is :
EB 59 8B 7B
40 2E A1 C3
F2 33 13 42
1E 84 E7 D6

*/
```