

```
import java.util.*;
```

```
class Solution {
```

```
    public static boolean
```

```
    solveSudoku(char[][] board) {
```

```
        for (int i = 0; i < 9; i++) {
```

```
            for (int j = 0; j < 9; j++) {
```

```
                if (board[i][j] == '.') {
```

```
                    for (char c = '1'; c <= '9'; c++) {
```

```
                        if (isValid(board, i, j, c)) {
```

```
                            board[i][j] = c;
```

```
                            if (solveSudoku(board))
```

```
                                return true;
```

```
                            else
```

```
                                board[i][j] = '.';
```

```
    }  
  }  
  
  return false;  
}  
}  
}  
return true;  
}
```

```
public static boolean  
isValid(char[][] board, int row, int  
col, char c) {  
  for (int i = 0; i < 9; i++) {  
    if (board[i][col] == c)  
      return false;  
  
    if (board[row][i] == c)  
      return false;
```

```
        if (board[3 * (row / 3) + i / 3][3  
* (col / 3) + i % 3] == c)  
            return false;  
    }  
    return true;  
}
```

```
public static void main(String[]  
args) {
```

```
    char[][] board= {  
        {'9', '5', '7', '.', '1', '3',  
'.', '8', '4'},  
        {'4', '8', '3', '.', '5', '7',  
'1', '.', '6'},  
        {'.', '1', '2', '.', '4', '9',  
'5', '3', '7'},
```

```
        {'1', '7', '.', '3', '.', '4',  
'9', '.', '2'},  
        {'5', '.', '4', '9', '7', '.',  
'3', '6', '.'},  
        {'3', '.', '9', '5', '.', '8',  
'7', '.', '1'},  
        {'8', '4', '5', '7', '9', '.',  
'6', '1', '3'},  
        {'.', '9', '1', '.', '3', '6',  
'.', '7', '5'},  
        {'7', '.', '6', '1', '8', '5',  
'4', '.', '9'}  
    };
```

```
    solveSudoku(board);
```

```
    for (int i = 0; i < 9; i++) {  
        for (int j = 0; j < 9; j++)  
            System.out.print(board[i][j] +  
" ");  
    };
```

```
System.out.println();
```

```
}
```

```
}
```

```
}
```