

## tb1x0.py

```
1 # Create a matrix with the specified number of rows and columns.
2 import array
3
4
5 def create_matrix(rows, cols):
6     # Initialize an empty list to store the rows of the matrix
7     matrix = []
8
9     # Iterate over each row
10    for _ in range(rows):
11        # Create an array to represent a row, filled with zeros initially
12        row = array.array("i", [0] * cols)
13        # Append the row to the matrix
14        matrix.append(row)
15
16    return matrix
17
18
19 def print_matrix(matrix):
20    """
21    Print the matrix.
22    """
23    for row in matrix:
24        print(row)
25
26
27 def main():
28    # Number of rows and columns for the matrix
29    rows = int(input("Enter the number of rows: "))
30    cols = int(input("Enter the number of columns: "))
31
32    # Create the matrix
33    matrix = create_matrix(rows, cols)
34
35    print("Enter the values for the matrix:")
36    for i in range(rows):
37        for j in range(cols):
38            value = int(input(f"Enter value for matrix[{i}][{j}]: "))
39            matrix[i][j] = value
40
41    print("\nMatrix created:")
42    print_matrix(matrix)
43
44
45 if __name__ == "__main__":
46    main()
47
```