DATA STRUCTURE AND ALGORITHM

LAB REPORT

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Batch & Section	**BSCS 01 (SECTION A)**
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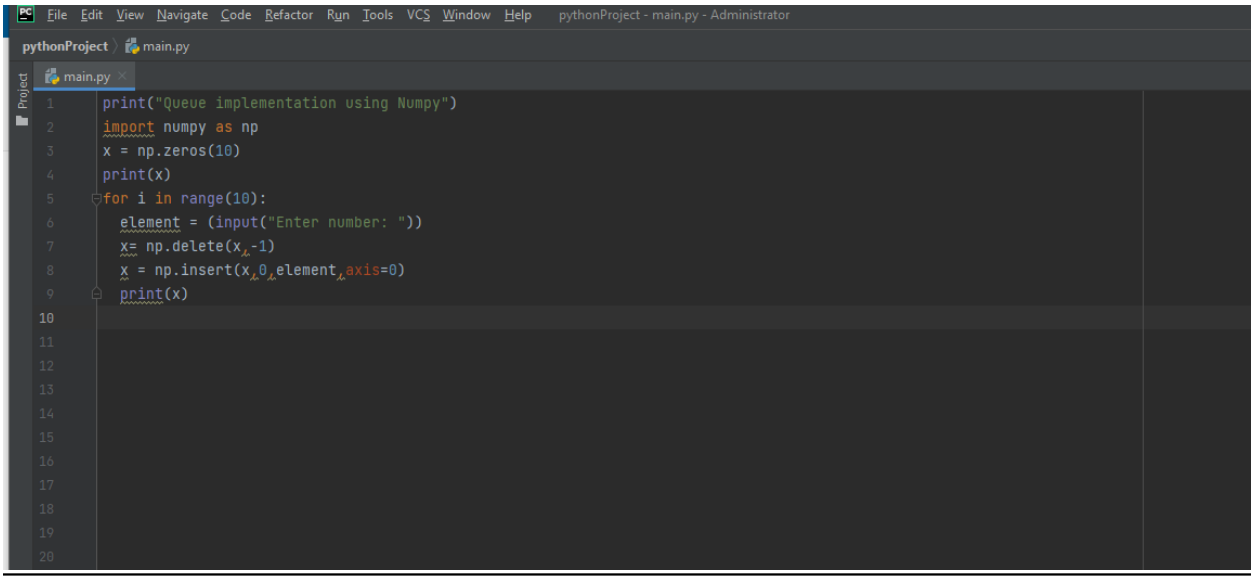
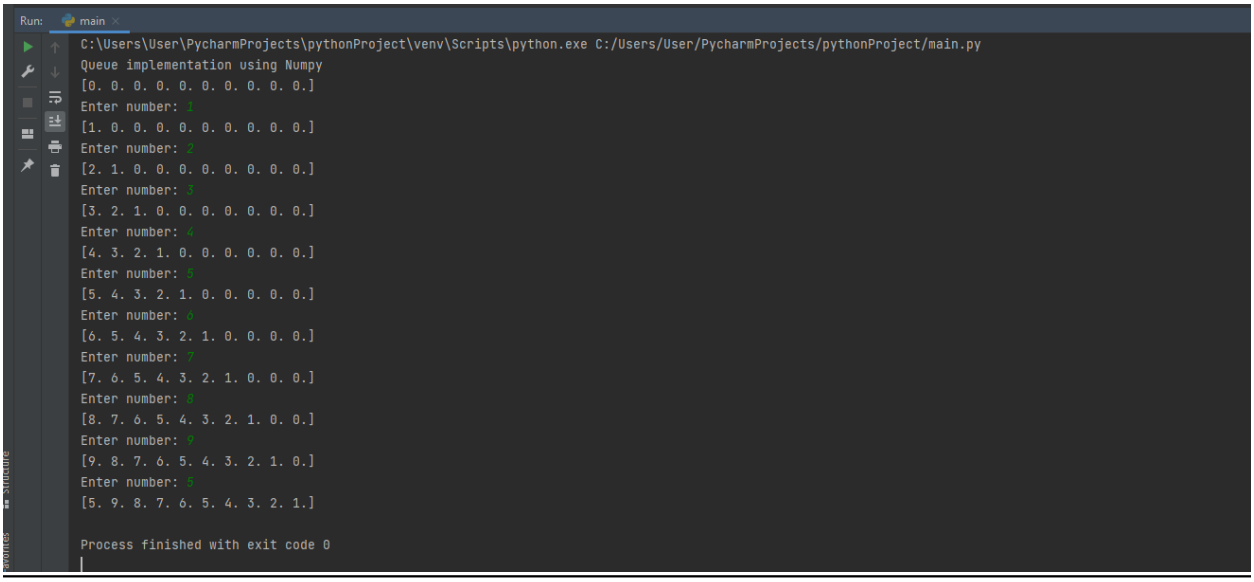
TASK 1

QUEUE IMPLEMENTATION USING NUMPY

SOLUTION

```
print("Queue implementation using Numpy")
import numpy as np
x = np.zeros(5)
print(x)
for i in range(10):
  element = (input("Enter number: "))
  x= np.delete(x,-1)
  x = np.insert(x,0,element,axis=0)
  print(x)
```





QUEUE IMPLEMENTATION USING COLLECTION

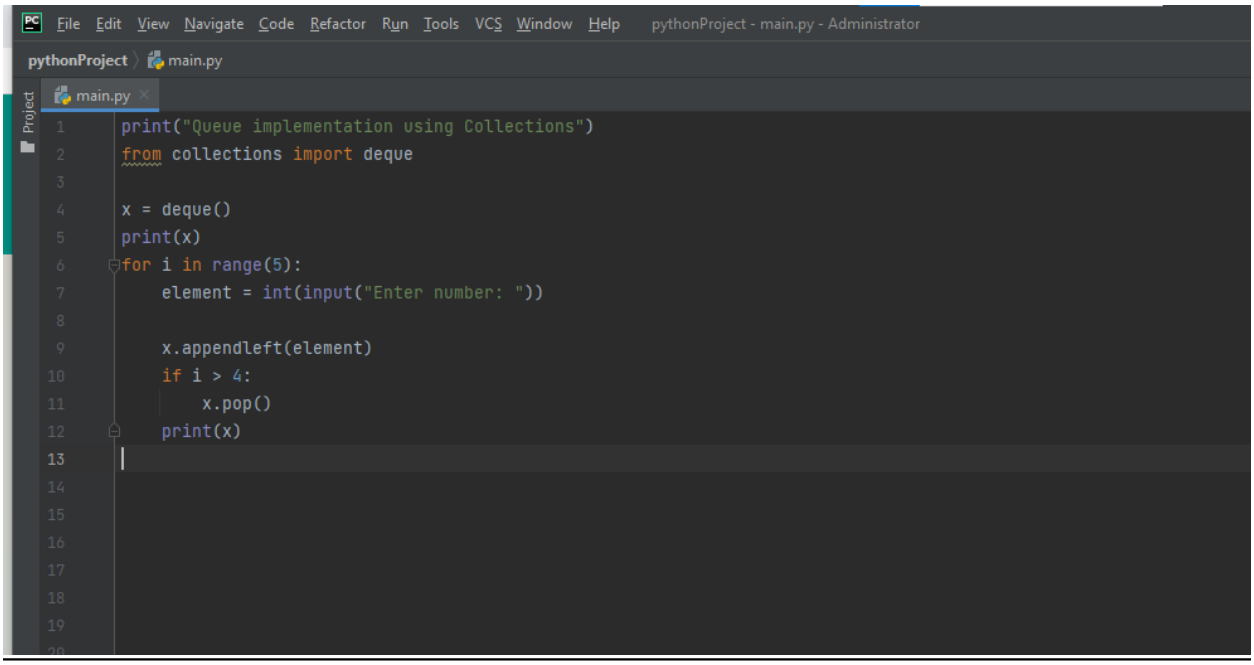
SOLUTION

```
print("Queue implementation using Collections")
from collections import deque


x = deque()
print(x)
for i in range(5):
    element = int(input("Enter number: "))


    x.appendleft(element)
    if i > 4:
        x.pop()
    print(x)
```

OUTPUT


File Edit View Navigate Code Refactor Run Tools VCS Window Help pythonProject - main.py - Administrator
pythonProject main.py
main.py
print("Queue implementation using Collections")
from collections import deque
x = deque()
print(x)
for i in range(5):
element = int(input("Enter number: "))
x.appendleft(element)
if i > 4:
x.pop()
print(x)


Run: main
C:\Users\User\PycharmProjects\pythonProject\venv\Scripts\python.exe C:/Users/User/PycharmProjects/pythonProject/main.py
Queue implementation using Collections
deque([])
Enter number: 1
deque([1])
Enter number: 2
deque([2, 1])
Enter number: 3
deque([3, 2, 1])
Enter number: 4
deque([4, 3, 2, 1])
Enter number: 5
deque([5, 4, 3, 2, 1])
Process finished with exit code 0
Run TODO Problems Terminal Python Packages Python Console