Questions on:

Concept, Queue operations, Array representation of queue, Queue as ADT,

1. Explain the concept of linear queue with a real time application?
2. Demonstrate the concept of queue.
3. Demonstrate the operations of queue with the help of C program.
4. Explain the queue representation using array and linked list.
5. Explain queue as ADT
6. How would you compare stack with queue with the help of examples.
7. What are the different applications of queue?

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Questions Set on Queue - Vandana Jirafe

Questions on

“Queue: Concept, Queue operations, Array representation of queue, Queue as ADT”

1. Write an algorithm called “CopyQueue” that copies the content of one queue to another queue.

2. Write a program that creates a queue from the stack. After the queue has been created , the top of the stack should be the front of the queue and the base of the stack should be the rear of the queue.

3. Write a program that compresses a string by deleting all space character in the string. Use queue for implementation.

4. The parking garage contains a single lane that holds up to ten cars. Car arrives at the south end of the garage and leave from the north end. If a customer arrives to pick up a car that is not the northernmost, all the cars to the north of the car are moved out , the car is driven out. The other cars are restored in the same order that they were originally. Whenever a car leaves all cars to the south are moved forward so that all times all the empty spaces are in the south part of the garage. Write a program in C that reads a group of input lines. Each line contains an ‘A’ for arrival or a ‘D’ for departure and license number plate. Cars are assumed to arrive and depart in the order specified by the input. The program should print the message each time car arrives or depart. When car arrives , it should print message whether or not there is a room for the car in the garage. If there is no room for the car, the car waits until there is room or until a departure line is read for the car. When room becomes available, another message should be printed.

5. Show how to sort a set of input numbers using a priority queue and the operations insert, delete and empty.

6. Explain advantages of Circular queue over sequential queue. Explain with proper example.

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Question on: Queue: Concept, Queue operations, Array representation of queue, Queue as ADT

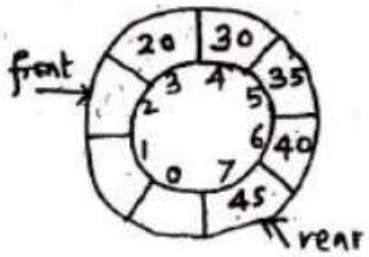
1) What is Queue? Why it is known as FIFO? Write an algorithm to insert and delete an element from a simple Queue.

2) Write a program to test for an empty queue?

3) Write down the operations that can be done with queue data structure?

4) Explain how queues can be implemented using Arrays.

5) For the given circular queue shown in Fig. write the values of front and rear in the table after each specified operation is performed. Queue full empty conditions must be considered. 0 -7 indicate the array indices.



Operation	Rear	Front
Insert 0		
Insert 10		
Insert 15		
delete		

6) Write a C Program to perform the following operations on a queue

Insert Delete Display

7) Write a c function

i) to insert an element at the rear end of a queue

ii) to delete an element from the front end of the queue

Archana Rajesh Date

Unit 3: Stack and Queue

1) Give the difference between simple Queue and Circular Queue.
2) Write an algorithm for circular queue that insert an element at the rear end.
3) Explain applications of priority Queue.
4) Explain array representation of priority queue with all basic operations.
5) Write program to Implement multiqueue.
6) Explain simulation of queue.