

Programming Languages 1

Lesson 8

Exercises:

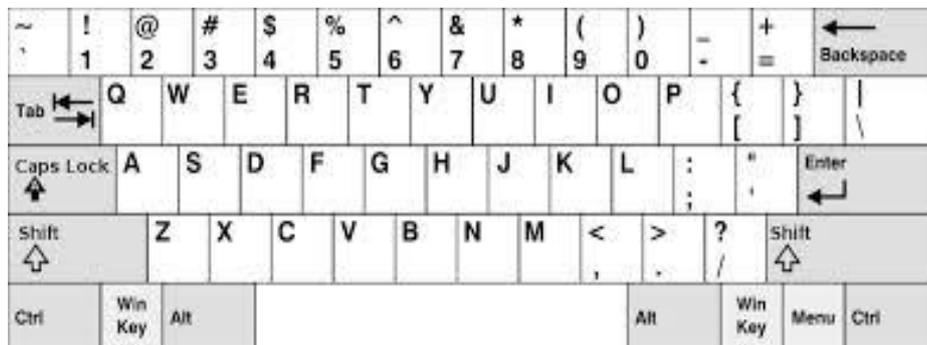
1. Write a C program in which you generate a random number between 0 and 100, and the user has to find out what the number is. When the users tips, you have to tell that the number he entered is lower or greater than your number and ask again. If he finds the number exit.
 1. Learn how to generate random numbers with the use of the rand() function
 2. Program the logic

2. Write a C program in which you read in numbers until 0. After the user gives 0 print out the numbers reversed.
 1. Learn how to create dynamic arrays in C
 2. Learn the use of the malloc(), realloc() and free() (also mention calloc())
 3. Write the program

3. Write a C program in which you implement the stack data structure as a linked list.
 1. Repeat what that stack data structure means
 2. Learn how to implement the linked list in C
 3. Write functions to add elements and to print all elements
 4. Write a function to remove an element from the list

4. Write a program in which you generate random int numbers between 0 and 100 and store them in a stack represented as a linked list.
 1. Use the previous code to store the numbers.

5. **Homework:** Implement the queue data structure as a linked list.



English keyboard layout