

# Assignment No.- 6

## ELP - 718 Telecom Software Lab

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2017JTM2187

Semester-1

A report presented for the assignment Developing logical skills to solve the given problem with the help of basic C.



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August 2, 2016

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# 1 Problem statement 1

## **Parity Check:**

The simplest way of error detection is to append a single bit , called a parity check, to a string of data bits. This parity check bit has the value 1 if number of 1s in the bit string is even and has the value 0 otherwise, i.e., Odd Parity Check.

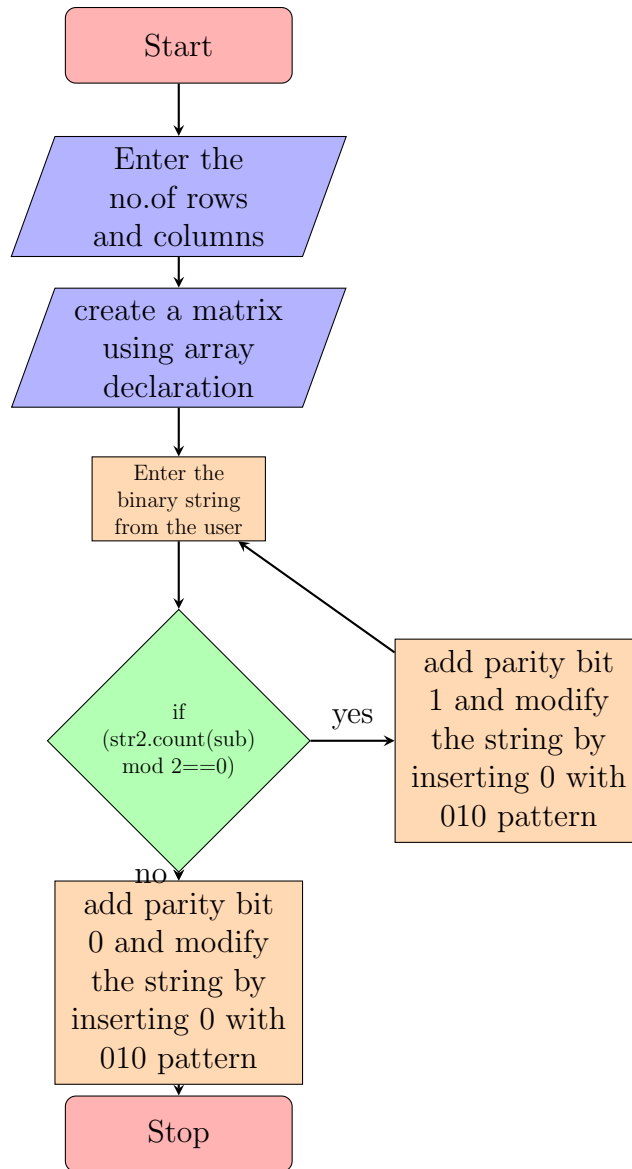
## **Bit Oriented Framing:**

Data Link Layer needs to pack bits into frames, so that each frame is distinguishable from another. Frames can be fixed or variable size. In variable size framing, we define end of frame using bit oriented approach. It uses a special string of bits, called a flag for both idle fill and to indicate the beginning and the ending of frames. The string 0101 is used as the bit string or flag to indicate the end of the frame. The bit stuffing rule is to insert a 0 after each appearance of 010 in the original data. In addition, if the frame ends in 01, a 0 would be stuffed after the 1st 0 in the actual terminating string 0101.

## 1.1 Assumptions

The information we are going to use ,we have already stored that in the file.

## 1.2 Structure Chart



## 2 Implementation

### 2.1 Input Format

Enter binary bit data which has to be transmitted.

### 2.2 Output Format

Print binary bit data with parity bit. Print the modified string received at the other end.

### **3     Test Description**

Sample Input: 01010

Sample Output: 010101 0100100100101

### **4     Screenshots**