

CSE 311 Exercise 2

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Read the steps carefully and follow them:

1. Open the PDF material named 'P_C problem Preemptive' from your Google Classroom/Classwork Tab. It is only for the code reference of Producer-Consumer following which you will solve the next steps.
2. Now, imagine you have to solve a P-C(Producer-Consumer) problem based on CASE 1. The buffer[n] (where $n = 0, 1, \dots, 7$) was empty at the start, there was no items. No processes were executed beforehand. So, the value of Global variable was set to $COUNT = 0$ and Local variable, $IN = 0$ and $OUT = 0$ at that time.
3. But situation changed, execution of processes occurred. The buffer[n] (where $n = 0, 1, \dots, 7$) is currently have one item(a variable named X2). Producer process has been executed twice and Consumer process has been executed only once. The order of execution is:
Producer→Consumer→Producer
4. Now, what will be the resultant value of COUNT, IN and OUT variables after Step 3 for CASE 1?

Answer:

Count = 2

IN = 2

OUT = 1