**HW 1,2 and 3**

**Question :**

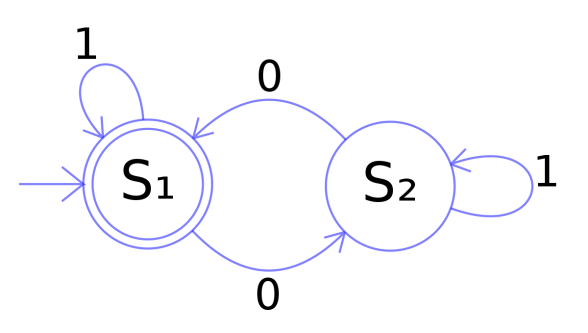
**1. Write a C.F.G. for generating an alternating sequence of 0's and 1's.**

**2. Write a C.F.G. for generating equal number of 0's and 1's.**

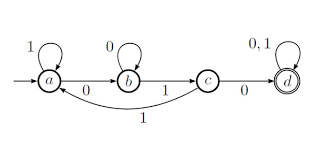
**3. Write a C.F.G. for generating sequence of 0's and 1's such they are not equal in numbers.**

**Question :**

**1. Find FA1 ∩FA2, FA1FA2, FA1'**

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FA1

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FA2

**Question :**

**1. Let language L = {}**

1. **Construct the PDA accepting L by final state.**
2. **Construct the PDA accepting L by empty store.**

**2. Construct an equivalent PDA for the following C.F.G.**

**S →Saa|aSa|aaS|aa**

**What language is accepted by it? Show simulation of any string of the accepting language.**