RGPV 2015

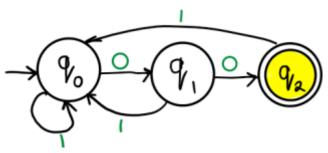
- Q. Design DFA accepting the following languages over the alphabet {0, 1}
 - 1. The set of all words ending in 00.
 - 1. The set of all words except ε .
 - 1. The set of all words that begin with 0.

Ans.

1. The set of all words ending with 00:

Some example strings = $\{00, 100, 000, 1000, 0100, 11100\}$

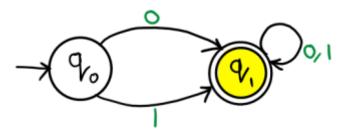
Regular expression = (0+1)*00



2. The set of all words except ε :

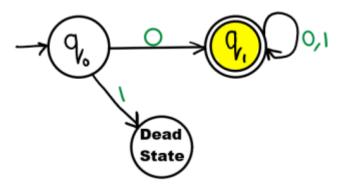
Some example strings = $\{0, 1, 00, 10, 01, 11, 000000, 11111\}$

Regular expression = $(0+1)(0+1)^*$



3. The set of all words that begin with 0:

Some example strings = $\{0, 01, 00000, 0101010101\}$ Regular expression = 0(0+1)*



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