

CS-3252

Section 01

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Assignment #3

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## Exercises

- Exercise 2.3.2

State	0	1
$\emptyset$	$\emptyset$	$\emptyset$
$\rightarrow p$	qs	q
* q	r	qr
r	s	p
* s	$\emptyset$	p
qs	r	pqr
qr	rs	pqr
pqr	qrs	pqr
rs	s	p
qrs	rs	pqr

- Exercise 2.3.3

The language this automaton accepts is all strings that end with either 01 or 00.

State	0	1
$\emptyset$	$\emptyset$	$\emptyset$
$\rightarrow p$	pq	p
q	rs	t
r	pr	t
* s	$\emptyset$	$\emptyset$
* t	$\emptyset$	$\emptyset$
pq	pqrs	pt
* pqrs	pqrs	pt
* pt	pq	p
* rs	pr	t
pr	pqr	pt
pqr	pqrs	pt

- Exercise 2.3.4(b) The set of strings over alphabet  $0, 1, \dots, 9$  such that the final digit has *not* appeared before.

