## CS375 WK7

Jason N Mansfield August 21, 2011

Figure 1: Q01: FA

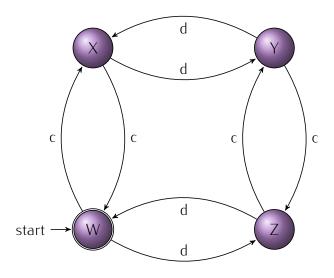


Figure 2: Q01: PDA

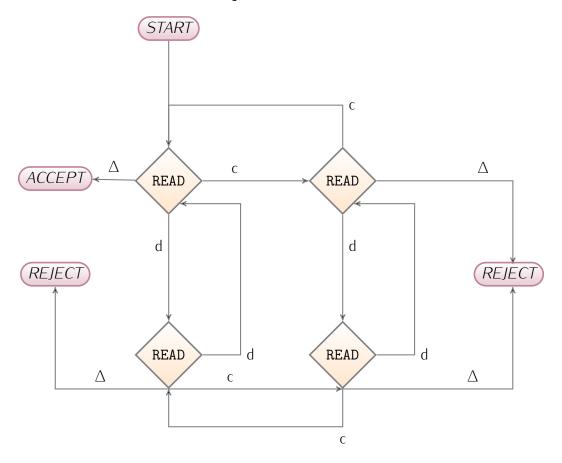
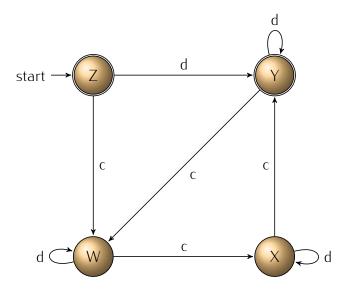


Figure 3: Q02: FA



ACCEPT d Δ START POP POP Δ d C POP d 🛦 d d READ (PUSH d) READ d C REJECT d C PUSH d PUSH d READ READ d d

Figure 4: Q02: PDA

Figure 5: Q03a: Conversion Form

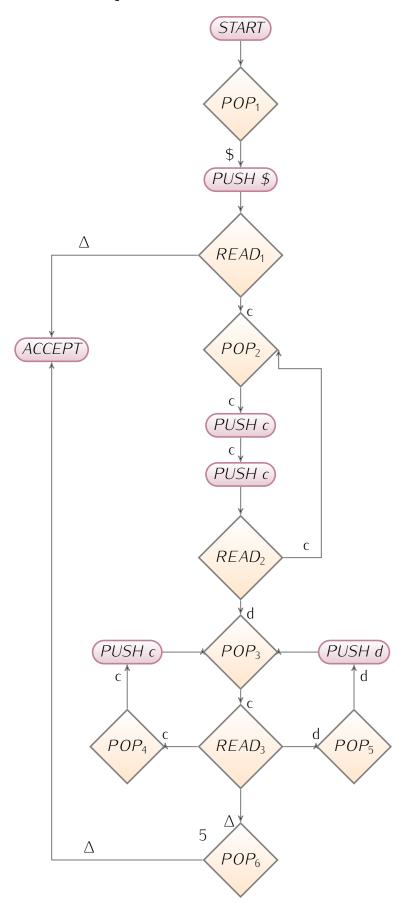


Figure 6: Q03.b

STATE	STACK	TAPE
Start	Δ	cccddd
$Read_1$	Δ	cccddd
Push	сΔ	cccddd
$Read_2$	с∆	cccddd
Push	сс∆	cccddd
$Read_2$	сс∆	cccddd
Push	ссс∆	cccddd
$Read_2$	ссс∆	cccddd
Pop	сс∆	cccddd
$Read_3$	сс∆	cccddd
Pop	сΔ	cccddd
$Read_3$	сΔ	cccddd
Pop	Δ	cccddd
$Read_3$	Δ	cccddd
Pop	Δ	cccddd
Accept	Δ	cccddd

**Figure 7:** Q03.c

STATE	STACK	TAPE
Start	Δ	cccdcd
$Read_1$	Δ	cccdcd
Push	сΔ	cccdcd
$Read_2$	сΔ	ccdcd
Push	сс∆	cccdcd
$Read_2$	сс∆	cccdcd
Push	ссс∆	cccdcd
$Read_2$	ссс∆	cccdcd
Pop	сс∆	cccdcd
$Read_3$	сс∆	cccdcd
Pop	сΔ	cccdcd
$Read_3$	сΔ	cccdcd
Pop	Δ	cccdcd
$Read_3$	Δ	cccdcd
Pop	Δ	cccdcd
Accept	Δ	cccdcd

Figure 8: Q03.d

STATE	STACK	TAPE
Start	Δ	cccdcc
$Read_1$	Δ	cccdcc
Push	сΔ	cccdcc
$Read_2$	с∆	ccdcc
Push	сс∆	ccdcc
$Read_2$	сс∆	cccdcc
Push	ссс∆	cccdcc
$Read_2$	ссс∆	cccdcc
Pop	сс∆	cccdcc
Read <sub>3</sub>	сс∆	cccdcc
Pop	сΔ	cccdcc
$Read_3$	сΔ	cccdcc
Pop	Δ	cccdcc
$Read_3$	Δ	cccdcc
Pop	Δ	cccdcc
Accept	Δ	cccdcc

Figure 9: Q03.e

STATE	STACK	TAPE
Start	Δ	cccdd
$Read_1$	Δ	cccdd
Push	сΔ	cccdd
$Read_2$	сΔ	cccdd
Push	сс∆	cccdd
$Read_2$	сс∆	ccccdd
Push	ссс∆	ccccdd
$Read_2$	ссс∆	ccccdd
Push	сссс∆	ccccdd
$Read_2$	сссс∆	ccccdd
Pop	ссс∆	cccdd
$Read_2$	ссс∆	ccccdd
Pop	сс∆	cccdd
$Read_3$	сс∆	ccccdd
Pop	сΔ	ccccdd
Reject	сΔ	cccdd