

CS375 WK7

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graph TD
    START([START]) --> RD1{READ}
    RD1 -- c --> RD2{READ}
    RD1 -- d --> RD3{READ}
    RD2 -- Δ --> ACCEPT([ACCEPT])
    RD2 -- d --> RD3
    RD3 -- c --> RD1
    RD3 -- Δ --> REJECT1([REJECT])
    RD1 -- Δ --> REJECT1
    RD1 -- Δ --> RD2
    RD1 -- Δ --> RD3
  
```

Figure 3: Q02: FA

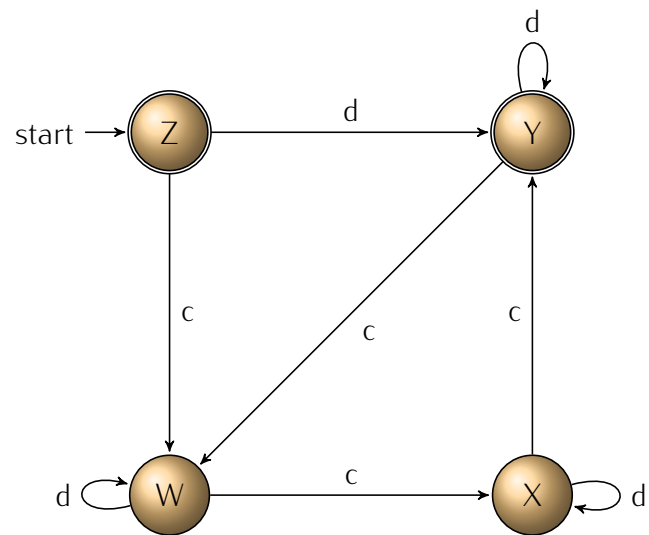


Figure 4: Q02: PDA

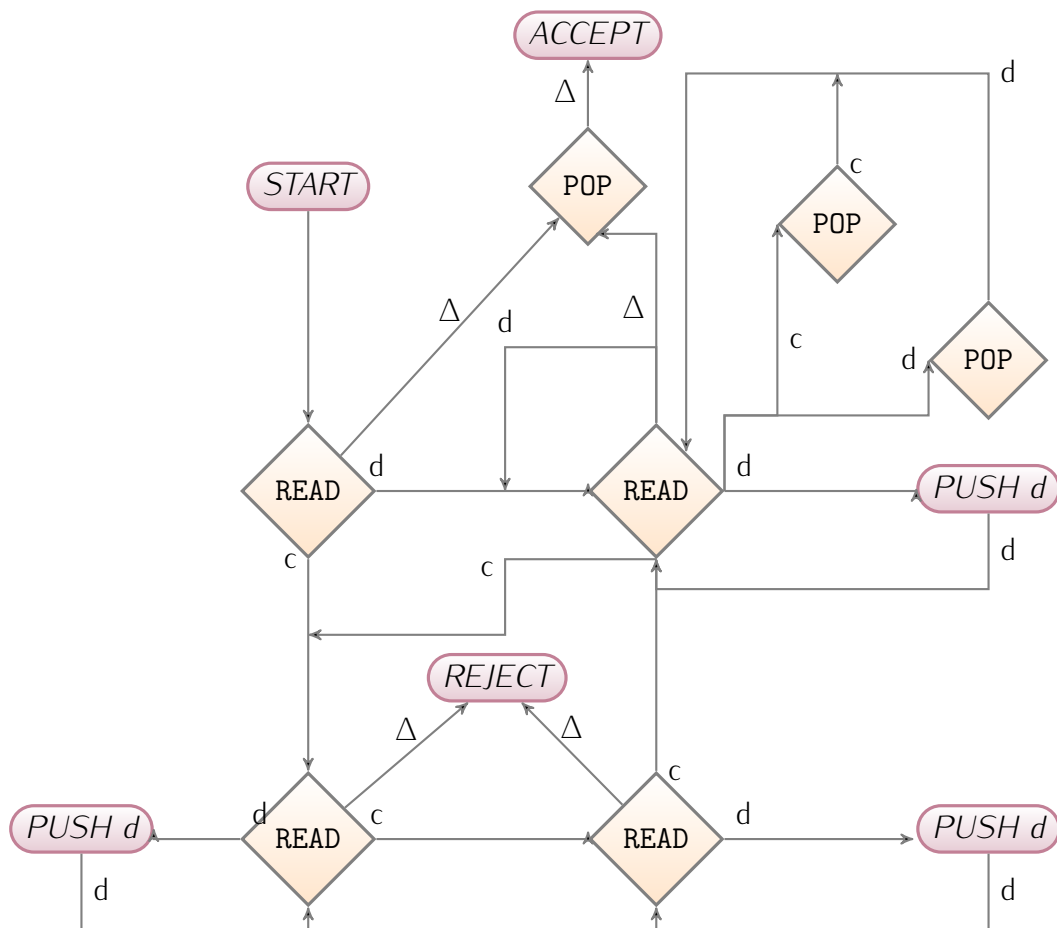


Figure 5: Q03a: Conversion Form

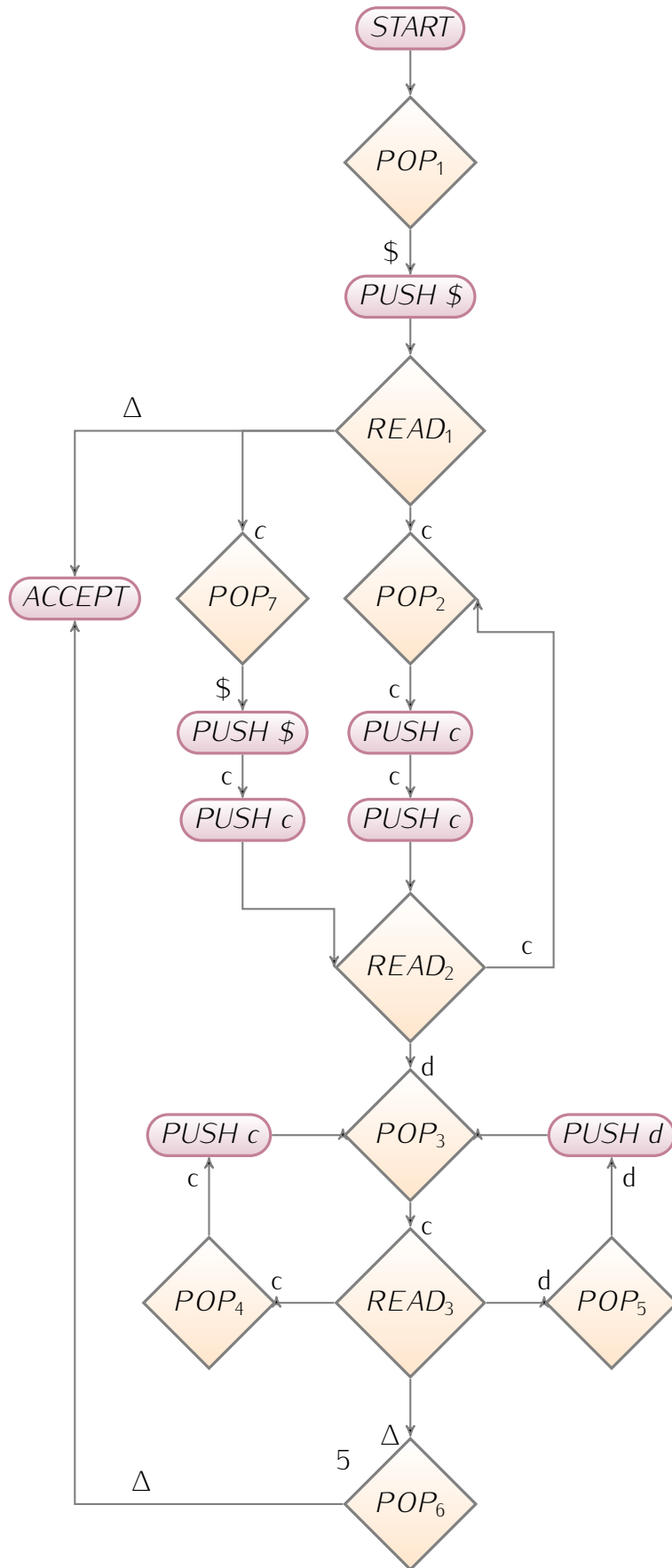


Figure 6: Q03.a Summary Table

FROM Where	To Where	READ What	POP What	PUSH What	ROW Number
START	$READ_1$	Λ	\$	\$	1
$READ_1$	ACCEPT	Λ			

Figure 7: Q03.b

STATE	STACK	TAPE						
Start	Δ	<table><tr><td>c</td><td>c</td><td>c</td><td>a</td><td>a</td><td>a</td></tr></table>	c	c	c	a	a	a
c	c	c	a	a	a			
$Read_1$	Δ	<table><tr><td>c</td><td>c</td><td>c</td><td>a</td><td>a</td><td>a</td></tr></table>	c	c	c	a	a	a
c	c	c	a	a	a			
Push	$c\Delta$	<table><tr><td>c</td><td>c</td><td>c</td><td>a</td><td>a</td><td>a</td></tr></table>	c	c	c	a	a	a
c	c	c	a	a	a			
$Read_2$	$c\Delta$	<table><tr><td>c</td><td>c</td><td>c</td><td>a</td><td>a</td><td>a</td></tr></table>	c	c	c	a	a	a
c	c	c	a	a	a			
Push	$cc\Delta$	<table><tr><td>c</td><td>c</td><td>c</td><td>a</td><td>a</td><td>a</td></tr></table>	c	c	c	a	a	a
c	c	c	a	a	a			
$Read_2$	$cc\Delta$	<table><tr><td>c</td><td>c</td><td>c</td><td>a</td><td>a</td><td>a</td></tr></table>	c	c	c	a	a	a
c	c	c	a	a	a			
Push	$ccc\Delta$	<table><tr><td>c</td><td>c</td><td>c</td><td>a</td><td>a</td><td>a</td></tr></table>	c	c	c	a	a	a
c	c	c	a	a	a			
$Read_2$	$ccc\Delta$	<table><tr><td>c</td><td>c</td><td>c</td><td>a</td><td>a</td><td>a</td></tr></table>	c	c	c	a	a	a
c	c	c	a	a	a			
Pop	$cc\Delta$	<table><tr><td>c</td><td>c</td><td>c</td><td>a</td><td>a</td><td>a</td></tr></table>	c	c	c	a	a	a
c	c	c	a	a	a			
$Read_3$	$cc\Delta$	<table><tr><td>c</td><td>c</td><td>c</td><td>a</td><td>a</td><td>a</td></tr></table>	c	c	c	a	a	a
c	c	c	a	a	a			
Pop	$c\Delta$	<table><tr><td>c</td><td>c</td><td>c</td><td>a</td><td>a</td><td>a</td></tr></table>	c	c	c	a	a	a
c	c	c	a	a	a			
$Read_3$	$c\Delta$	<table><tr><td>c</td><td>c</td><td>c</td><td>a</td><td>a</td><td>a</td></tr></table>	c	c	c	a	a	a
c	c	c	a	a	a			
Pop	Δ	<table><tr><td>c</td><td>c</td><td>c</td><td>a</td><td>a</td><td>a</td></tr></table>	c	c	c	a	a	a
c	c	c	a	a	a			
$Read_3$	Δ	<table><tr><td>c</td><td>c</td><td>c</td><td>a</td><td>a</td><td>a</td></tr></table>	c	c	c	a	a	a
c	c	c	a	a	a			
Pop	Δ	<table><tr><td>c</td><td>c</td><td>c</td><td>a</td><td>a</td><td>a</td></tr></table>	c	c	c	a	a	a
c	c	c	a	a	a			
Accept	Δ	<table><tr><td>c</td><td>c</td><td>c</td><td>a</td><td>a</td><td>a</td></tr></table>	c	c	c	a	a	a
c	c	c	a	a	a			

Figure 8: Q03.c

STATE	STACK	TAPE
Start	Δ	c c c a c a
$Read_1$	Δ	c c c a c a
Push	$c\Delta$	c c c a c a
$Read_2$	$c\Delta$	c c c a c a
Push	$cc\Delta$	c c c a c a
$Read_2$	$cc\Delta$	c c c a c a
Push	$ccc\Delta$	c c c a c a
$Read_2$	$ccc\Delta$	c c c a c a
Pop	$cc\Delta$	c c c a c a
$Read_3$	$cc\Delta$	c c c a c a
Pop	$c\Delta$	c c c a c a
$Read_3$	$c\Delta$	c c c a c a
Pop	Δ	c c c a c a
$Read_3$	Δ	c c c a c a
Pop	Δ	c c c a c a
Accept	Δ	c c c a c a

Figure 9: Q03.d

STATE	STACK	TAPE
Start	Δ	c c c a c c
$Read_1$	Δ	c c c a c c
Push	$c\Delta$	c c c a c c
$Read_2$	$c\Delta$	c c c a c c
Push	$cc\Delta$	c c c a c c
$Read_2$	$cc\Delta$	c c c a c c
Push	$ccc\Delta$	c c c a c c
$Read_2$	$ccc\Delta$	c c c a c c
Pop	$cc\Delta$	c c c a c c
$Read_3$	$cc\Delta$	c c c a c c
Pop	$c\Delta$	c c c a c c
$Read_3$	$c\Delta$	c c c a c c
Pop	Δ	c c c a c c
$Read_3$	Δ	c c c a c c
Pop	Δ	c c c a c c
Accept	Δ	c c c a c c

Figure 10: Q03.e

STATE	STACK	TAPE
Start	Δ	c c c c d d a
$Read_1$	Δ	c c c c d d a
Push	$c\Delta$	c c c c d d a
$Read_2$	$c\Delta$	c c c c d d a
Push	$cc\Delta$	c c c c d d a
$Read_2$	$cc\Delta$	c c c c d d a
Push	$ccc\Delta$	c c c c d d a
$Read_2$	$ccc\Delta$	c c c c d d a
Push	$cccc\Delta$	c c c c c d d a
$Read_2$	$cccc\Delta$	c c c c c d d a
Pop	$ccc\Delta$	c c c c d d a
$Read_2$	$ccc\Delta$	c c c c d d a
Pop	$cc\Delta$	c c c c d d a
$Read_3$	$cc\Delta$	c c c c d d a
Pop	$c\Delta$	c c c c d d a
Reject	$c\Delta$	c c c c d d a