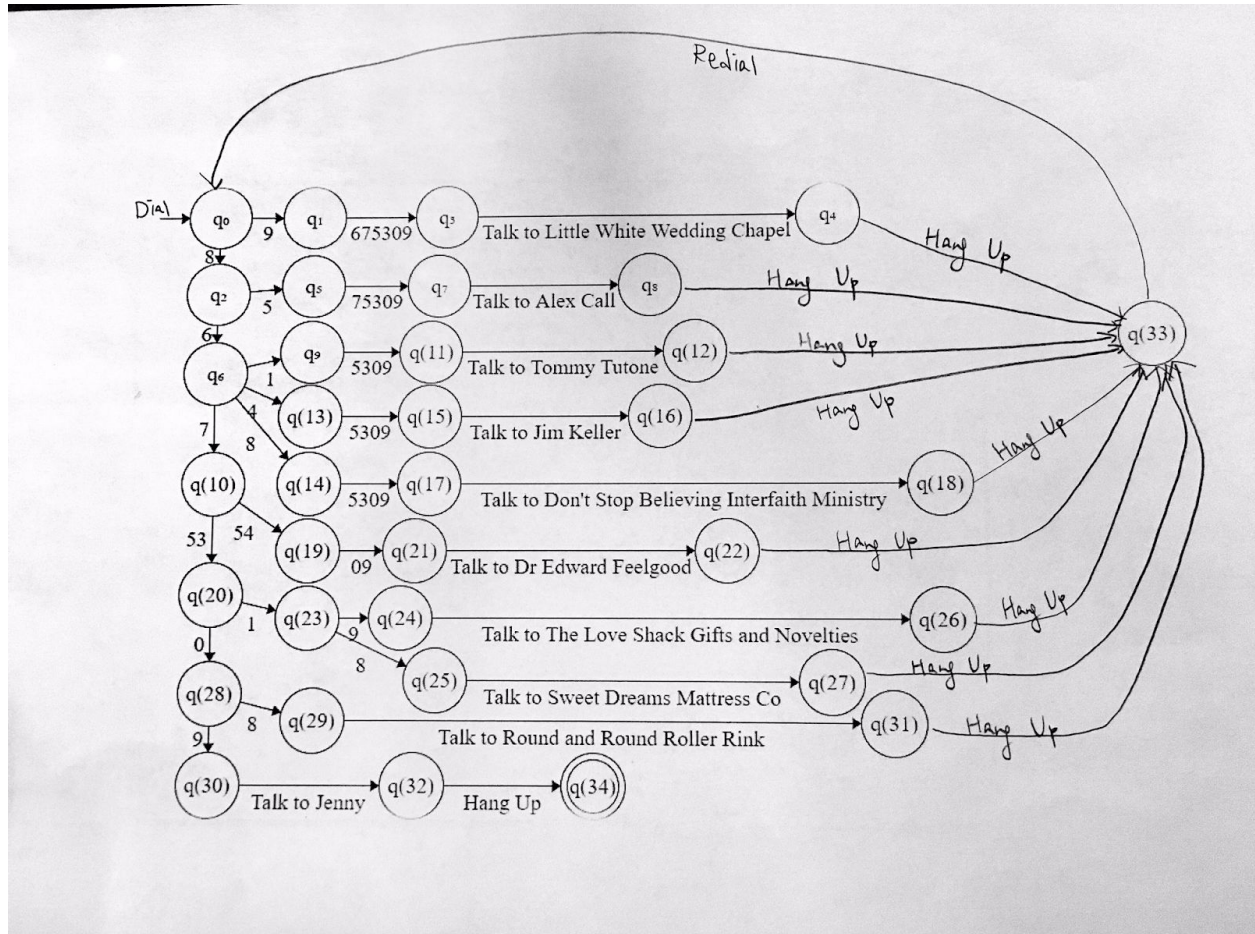


Name Jing Low
 Section 27F3
 Assignment 07
 Due Date March 14, 2018



$Q = \{ q_0, q_1, q_2, q_3, q_4, q_5, q_6, q_7, q_8, q_9, q_{10}, q_{11}, q_{12}, q_{13}, q_{14}, q_{15}, q_{16}, q_{17}, q_{18}, q_{19}, q_{20}, q_{21}, q_{22}, q_{23}, q_{24}, q_{25}, q_{26}, q_{27}, q_{28}, q_{29}, q_{30}, q_{31}, q_{32}, q_{33}, q_{34} \}$

$\Sigma = \{ 8, 9, 675309, 6, 5, 75309, 7, 1, 4, 8, 5309, 53, 54, 09, 0, \text{Talk to Little White Wedding Chapel, Talk to Alex Call, Talk to Tommy Tutone, Talk to Jim Keller, Talk to Don't Stop Believing Interfaith Ministry, Talk to Dr Edward Feelgood, Talk to The Love Shack Gifts and Novelties, Talk to Sweet Dreams Mattress Co, Talk to Round and Round Roller Rink, Talk to Jenny, Hang Up, Redial, Dial} \}$

$q_0 = q_0$

- q_0 is the state that marks the starting point of the dialing process

$F = q_{34}$

$\delta(q_0, 9) = q_1$
 $\delta(q_1, 675309) = q_3$
 $\delta(q_3, \text{Talk to Little White Wedding Chapel}) = q_4$

$\delta(q_0, 8) = q_2$
 $\delta(q_2, 5) = q_5$
 $\delta(q_5, 75309) = q_7$
 $\delta(q_7, \text{Talk to Alex Call}) = q_8$

$\delta(q_2, 6) = q_6$
 $\delta(q_6, 1) = q_9$
 $\delta(q_9, 5309) = q_{11}$
 $\delta(q_{11}, \text{Talk to Tommy Tutone}) = q_{12}$

$\delta(q_6, 4) = q_{13}$
 $\delta(q_{13}, 5309) = q_{15}$
 $\delta(q_{15}, \text{Talk to Jim Keller}) = q_{16}$

$\delta(q_6, 8) = q_{14}$
 $\delta(q_{14}, 5309) = q_{17}$
 $\delta(q_{17}, \text{Talk to Don't Stop Believing Interfaith Ministry}) = q_{18}$

$\delta(q_6, 7) = q_{10}$
 $\delta(q_{10}, 54) = q_{19}$
 $\delta(q_{19}, 09) = q_{21}$
 $\delta(q_{21}, \text{Talk to Dr. Edward Feelgood}) = q_{22}$

$\delta(q_{10}, 53) = q_{20}$
 $\delta(q_{20}, 1) = q_{23}$
 $\delta(q_{23}, 9) = q_{24}$
 $\delta(q_{24}, \text{Talk to The Love Shack Gifts and Novelties}) = q_{26}$

$\delta(q_{23}, 8) = q_{25}$
 $\delta(q_{25}, \text{Talk to Sweet Dreams Mattress Co}) = q_{27}$

$\delta(q_{20}, 0) = q_{28}$
 $\delta(q_{28}, 8) = q_{29}$
 $\delta(q_{29}, \text{Talk to Round and Round Roller Rink}) = q_{31}$

$\delta(\{q_4, q_8, q_{12}, q_{16}, q_{18}, q_{22}, q_{26}, q_{27}, q_{31}\}, \text{Hang Up}) = q_{33}$
 $\delta(q_{33}, \text{Redial}) = q_0$

$$\delta(q_{28}, 9) = q_{30}$$

$$\delta(q_{30}, \text{Talk to Jenny}) = q_{32}$$

$$\delta(q_{32}, \text{Hang Up}) = q_{34}$$