Lab 9 : State machine diagram

In this lab you will continue elaborating on the design of the station box. Based on the details given in lab 6 and 7 and the diagrams you have produced so far, continue to create a state machine diagram for the station box. The state machine must encompass all the use-cases for the employee. Below follows a description of the external signals that drive the state machine and the signals that are produced by the state machine. This interface analysis is always the first step in creating a state machine.

Signals generated from peripherals:

Signal	Function
scan	Barcode was scanned. Contains barcode number
keyPad	Action key was pressed. Contains numbers pressed before action key
touchScreen	Action button was pressed. No information contained
cardSwipe	Card was swiped. Contains the card number
customerNumpad	Action key was pressed. Contains number pressed before OK.
bankReply	The bank replied to a transaction. Value is error code. ‘0’ = success

Signals generated from the employee numpad:

Key	Signal	Function
A		
B	total	Calculates total. Post: System is ready for payment
C	cash	Cash received. Input sequence is <amount> <cash>
D	enter	End input. Input sequence is <item id> <enter>
E	x	Multiplier. Input sequence is <number> <x> <barcode> or <number> <x> <item id> <enter>
F	.	Dot. Decimal separator for inputting decimals.

Signals generated from the employee touch screen:

Button	Signal	Function
Card	card	Starts credit card transaction
Cancel	cancel	Cancels credit card transaction
Edit	edit	Enters the edit receipt menu
Done	done	Exits the edit receipt menu

Signals generated from the customer numpad:

Button	Signal	Function
OK	ok	Confirms PIN or amount
Cancel	cancel	Cancels transaction