CS570 Week6

Training Phase
Input: 12, 13, 9

Hash Function:
$(x+6)\%8$
$(x+9)\%7$

$(12+6)\%8 = 2$
$(13+6)\%8 = 3$
$(9+6)\%8 = 7$
$(12+9)\%7 = \phi$
$(13+9)\%7 = 1$
$(9+9)\%7 = 4$

Output:
array[0] = 1
array[1] = 1
array[2] = 1
array[3] = 1
array[4] = 1
array[5] = ϕ
array[6] = ϕ
array[7] = 1

Look up (Test):
11, 12, 14, 16, 8, 9

Hash Function: Same

arrays In the Last Probe
↓ No Yes

$(11+6)\%8 = 1 \Rightarrow 1$ ✓
$(12+6)\%8 = 2 \Rightarrow 1$ ✓
$(14+6)\%8 = 4 \Rightarrow 1$ ✓
$(16+6)\%8 = 6 \Rightarrow \phi$ ✓
$(8+6)\%8 = 6 \Rightarrow \phi$ ✓
$(9+6)\%8 = 7 \Rightarrow 1$
$(11+9)\%7 = 6 \Rightarrow \phi$ ✓
$(12+9)\%7 = \phi \Rightarrow 1$ ✓
$(14+9)\%7 = 2 \Rightarrow 1$ ✓
$(16+9)\%7 = 4 \Rightarrow 1$ ✓
$(8+9)\%7 = 3 \Rightarrow 1$ ✓
$(9+9)\%7 = 4 \Rightarrow 1$ ✓

TP (2)	FP (1)
9, 12	14
FN (3)	TN (0)
11, 16, 8	

Confusion Matrix

Yes :

TP	FP
Yes → Yes	!Yes → Yes
2	1
FN	**TN**
Yes → !Yes	!Yes → !Yes
3	0

Accuracy : 2/5 , Precision : 2/3

No :

TP	FP
No → No	!No → No
~~0~~	3
FN	**TN**
No → !No	~~!Yes~~ !No → !No
1	2

Accuracy : 2/5 , Precision : 0/3

So, model 1 is more accurate.