Project Eight An Exercise from Textbook

The following project is coming from your textbook.

Nine coins are placed in a 3x3 matrix with some face up and some face down. You can represent the state of the coins using a 3x3 matrix with values 0 (heads) and 1 (tails). Here are some examples:

0 0 0 1 0 1 1 1 0
0 1 0 0 0 1 1 0 0
0 0 0 1 0 0 0 0 1

Each state can also be represented using a binary number. For example, the preceding matrices correspond to the numbers:

000010000 101001100 110100001

There are a total of 512 possibilities, so you can use decimal numbers 0, 1, 2, 3,...,511 to represent all the states of the matrix.

Write a program that prompts the user to enter a number between 0 and 511 and displays the corresponding matrix with the characters H and T.

SAMPLE RUN # 1 JAVA HEADSANDTAILS

Enter an integer representing the state of the coins:255
H T T
T T T
T T T

SAMPLE RUN # 2 JAVA HEADSANDTAILS

Enter an integer representing the state of the coins:107
H H T
T H T
H T T

Submit the YourProj08.java file via Blackboard link. The due date will be announced on Blackboard.