

Activity Guide - Pet Records



Pet Records

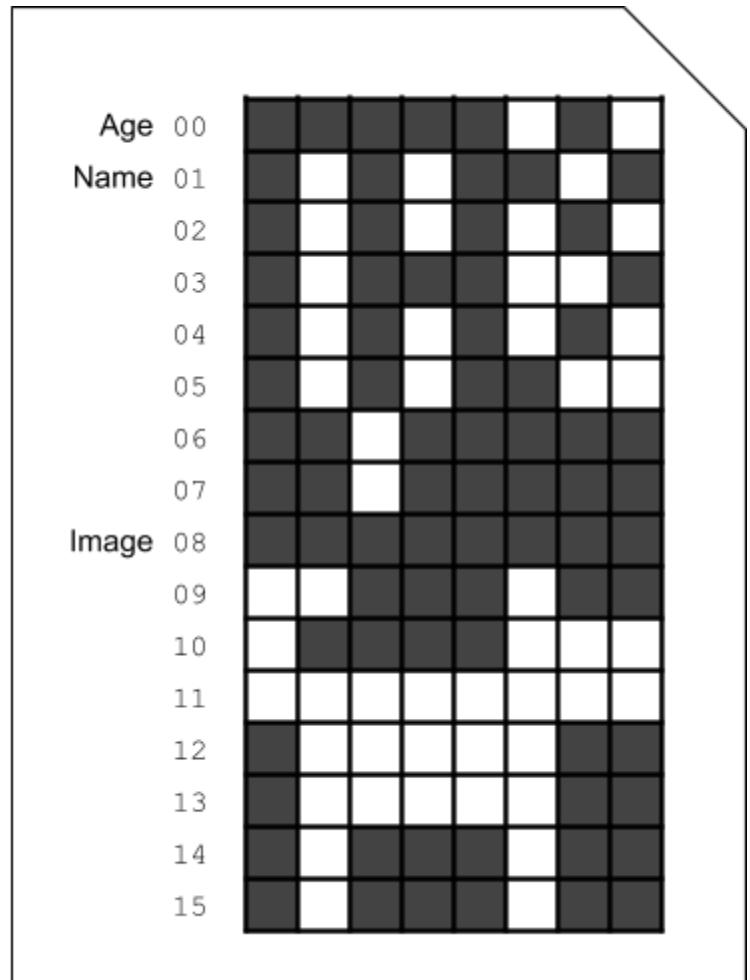
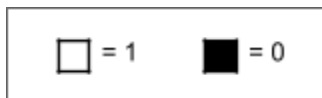
A pet shelter is keeping records of all the different pets available for adoption. Each record includes the pet's age, name, and an 8x8 image representation of the pet.

The record is stored in binary, and it's organized into 8-bit sections. Each section of 8 bits is called a **byte**.

- The first byte (00) holds the pet's age as a binary number.
- The next seven bytes (01-07) hold the pet's name. Each byte is one ASCII character.
- The next eight bytes (08-15) hold the 8x8 image of the pet.

Decode the Record

Use what you know about binary numbers and ASCII to decode the age and name of the pet described in the record to the right.



Fill out the age and name of the pet in the table below.

Age	Name								

What information can you find in the 8x8 picture?

New Record

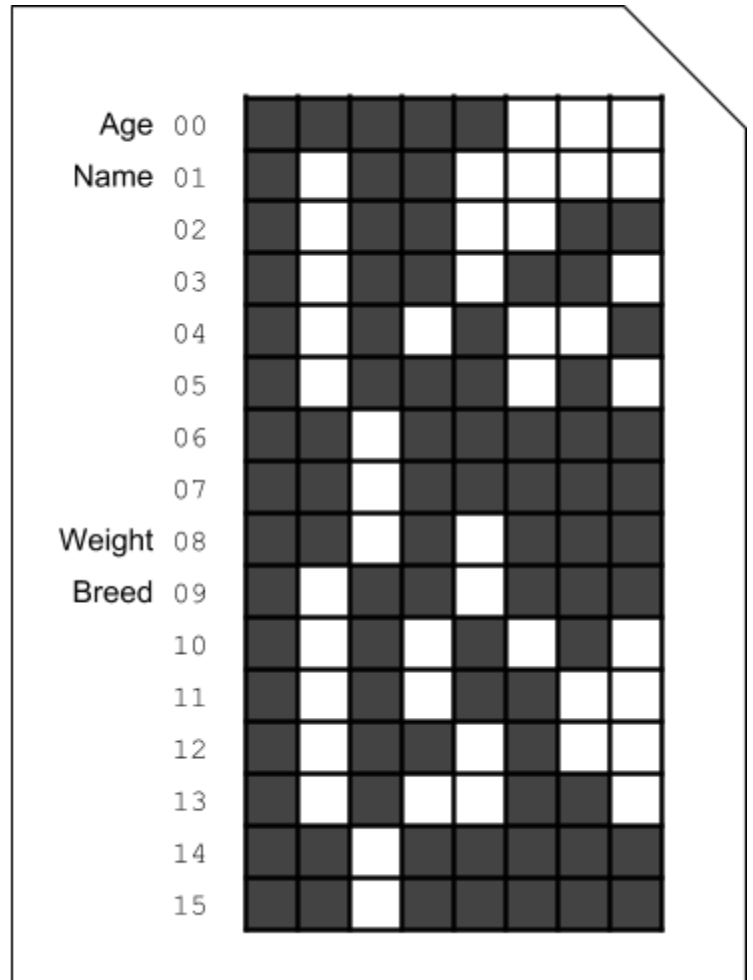
The pet shelter decided that the image wasn't very useful, so it decided to use the space to save the weight and breed of the dog instead.

The new record is organized as follows:

- The first byte (00) holds the pet's age as a binary number.
- The next seven bytes (01-07) hold the pet's name. Each byte is one ASCII character.
- The next byte (08) holds the pet's weight in pounds as a binary number.
- The next seven bytes (09-15) hold the pet's breed. Each byte is one ASCII character.

Decode the Record

Use what you know about binary numbers and ASCII to decode the age, name, weight, and breed of the pet described in the record to the right.



Fill out the age, name, weight, and breed of the pet in the table below.

Age	Name							Weight	Breed							

What other information might someone want to put in the record? _____

How would this information be encoded? _____