

## Exercise 1A: Patterning a Data Structure

### Part 1: Identifying the Attributes.

#### Sock 1:

- Length: Mid-calf cut.
- Pattern: Snowflakes.
- Pattern coverage (whole/partial sock): Whole sock
- Color: Tan, dark gray.
- Material: Cotton and wool blend.
- Size: Adult medium.

#### Sock 2:

- Length: Below-ankle cut.
- Pattern: Polka-dot, one penguin.
- Pattern coverage (whole/partial sock): Partial sock
- Color: Magenta, blue, white.
- Material: polyester.
- Size: Adult small.

#### Sock 3:

- Length: Mid-calf cut.
- Pattern: Checkered, stripes.
- Pattern coverage (whole/partial sock): Whole sock
- Color: Multicolored.
- Material: Acrylic.
- Size: Adult small.

#### Sock 4:

- Length: Below-ankle cut.
- Pattern: Roses.
- Pattern coverage (whole/partial sock): Whole sock
- Color: Pink, red.
- Material: Cotton.
- Size: Adult medium.

#### Sock 5:

- Length: Above-ankle cut.
- Pattern: Argyle, one dog.
- Pattern coverage (whole/partial sock): Partial sock
- Color: Tan, red, blue.
- Material: Cotton.
- Size: Adult large.

#### Sock 6:

- Length: Below-ankle cut.
- Pattern: Striped.
- Pattern coverage (whole/partial sock): Whole sock
- Color: Rainbow.
- Material: Recycled cotton.
- Size: Adult medium.

#### Sock 7:

- Length: Below-ankle cut.
- Pattern: Brand logo.
- Pattern coverage (whole/partial sock): Partial sock
- Color: Dark gray, turquoise.
- Material: Polyester.
- Size: Adult large.

#### Sock 8:

- Length: Mid-calf.
- Pattern: Stars, one Totoro.
- Pattern coverage (whole/partial sock): Partial sock
- Color: Light gray, dark gray, white, blue.
- Material: Wool.
- Size: Adult large.

#### Sock 9:

- Length: Knee-length.
- Pattern: solid color, small bird.
- Pattern coverage (whole/partial sock): Partial sock
- Color: Blue.
- Material: Cotton.
- Size: Adult small.

Sock 10:

- Length: Knee length.
- Pattern: Mustaches.
- Pattern coverage (whole/partial sock): Whole sock
- Color: Pink, black.
- Material: Cotton-wool blend.
- Size: Adult large.

## Part 2: Building the Data Structure.

Length:	below-ankle, above-ankle, mid-calf, knee length, half-foot, mid-thigh, custom.
Pattern:	Snowflakes, polkadots, checkered, stripes, roses, argyle, stars, one-color, mustaches, solid color, one dog, one bird, one Totoro, one fish, one reptile, one cat, brand logo, text, none.
Pattern coverage:	Whole sock, partial sock.
Color:	Tan, red, magenta, pink, orange, yellow, green, turquoise, blue, purple, light gray, dark gray, black, white, multicolored, rainbow, other.
Material:	Wool, acrylic, cotton, recycled cotton, polyester, cotton-wool blend, unknown, other.
Size:	Adult small, adult medium, adult large, adult XL, youth small, youth medium, youth large.