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JS Objects

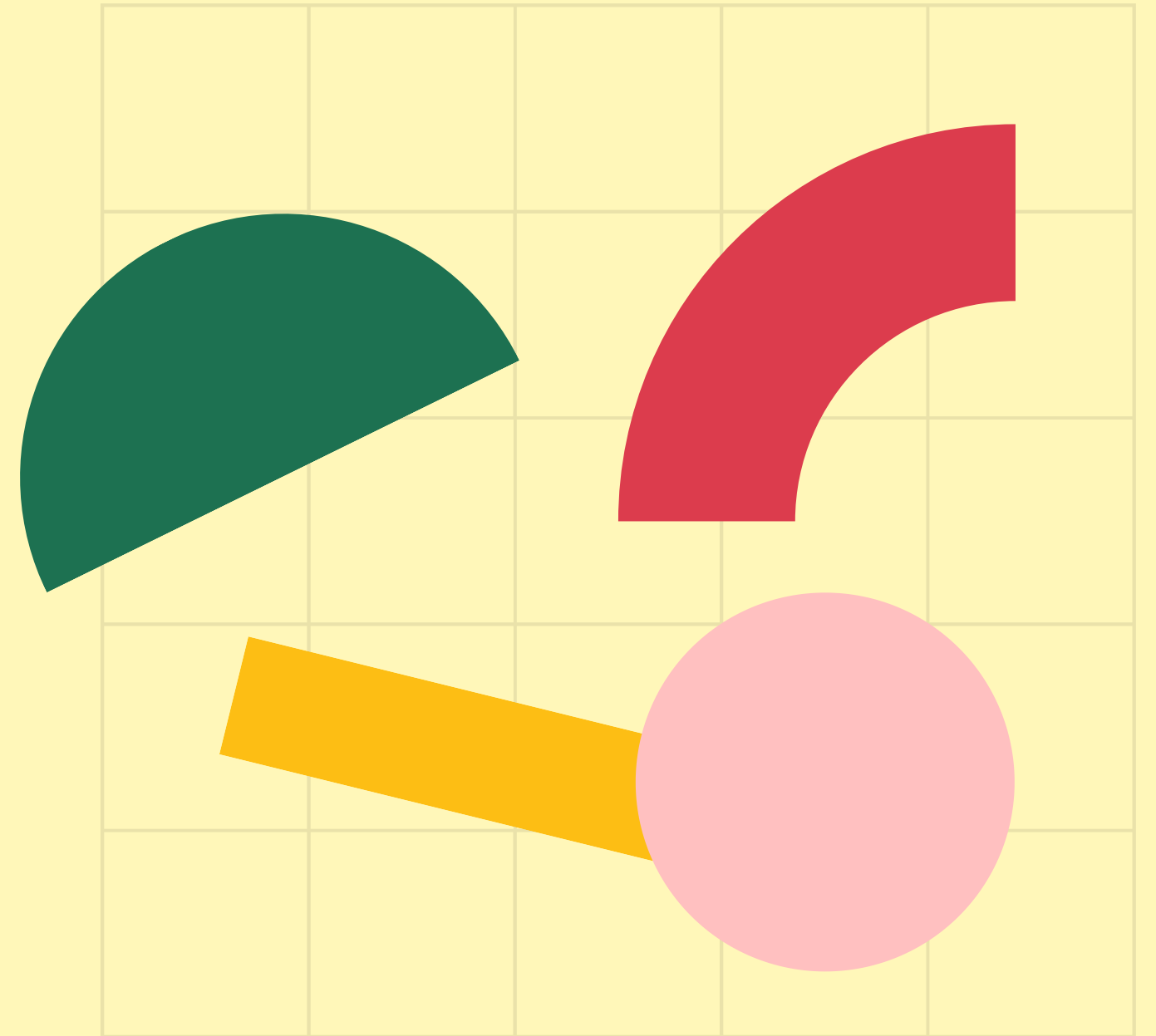
Our Second Data Structure



Unit Goals

what we'll cover

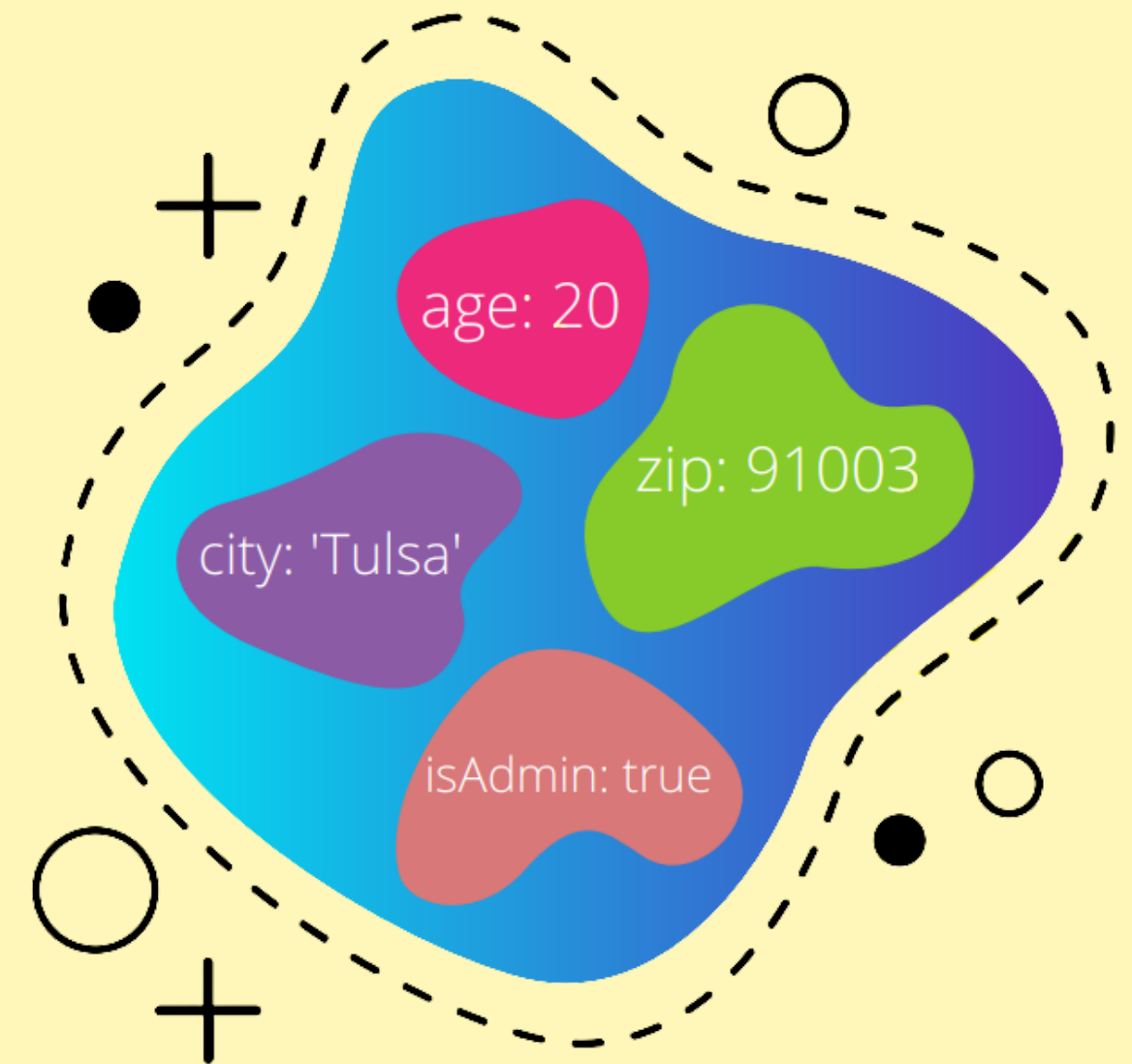
- what objects are
- accessing object data
- updating and adding properties



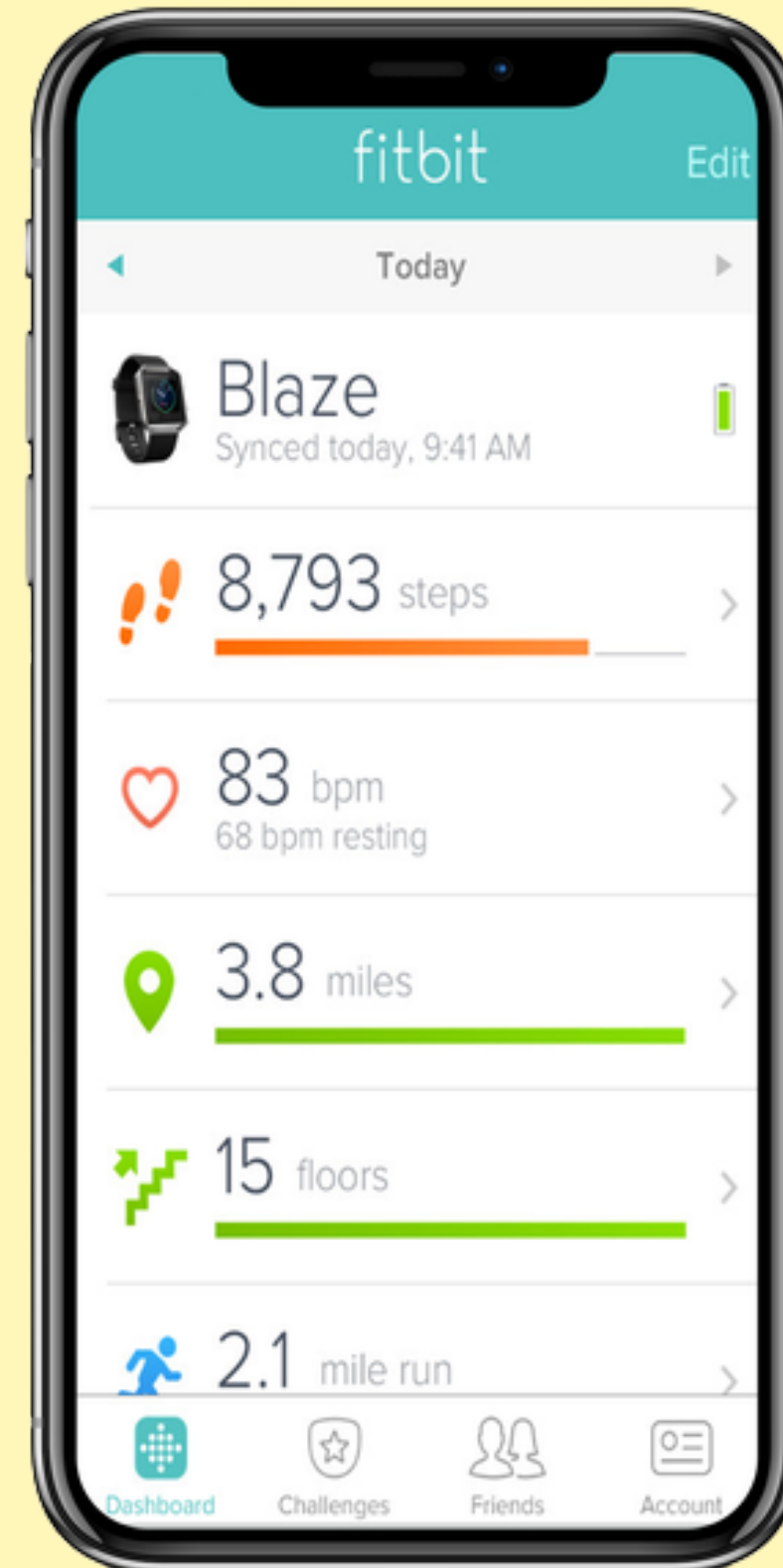
OBJECTS



- Objects are collections of **properties**.
- Properties are a key-value pair.
- Rather than accessing data using an index, we use custom keys



HOW WOULD YOU STORE THIS?



USING AN OBJECT



```
const fitBitData = {  
  totalSteps      : 308727,  
  totalMiles      : 211.7,  
  avgCalorieBurn  : 5755,  
  workoutsThisWeek : '5 of 7',  
  avgGoodSleep    : '2:13'  
};
```

PROPERTY = KEY + VALUE



+



KEY - VALUE PAIRS



username: "TomCat"
upvotes: 7
text: "great post!"



DICTIONARY



ALL TYPES WELCOME

```
let comment = {  
  username      : 'sillyGoose420',  
  downVotes     : 19,  
  upVotes       : 214,  
  netScore      : 195,  
  commentText   : 'Tastes like chicken lol',  
  tags: ['#hilarious', '#funny', '#silly'],  
  isGilded: false  
};
```



VALID KEYS



ALL KEYS ARE
CONVERTED TO
STRINGS*



*Except for symbols, which we haven't covered yet.

ACCESSING DATA



```
const palette = {  
  red: '#eb4d4b',  
  yellow: '#f9ca24',  
  blue: '#30336b'  
}
```



```
palette.red //"#eb4d4b"
```



```
palette['blue'] //"#30336b"
```



```
let color = 'yellow';  
palette[color] //"#f9ca24"
```

UPDATING AND ADDING PROPERTIES



```
const fitBitData = {  
  totalSteps      : 308727,  
  totalMiles      : 211.7,  
  avgCalorieBurn  : 5755,  
  workoutsThisWeek : '5 of 7',  
  avgGoodSleep    : '2:13'  
};  
//Updating properties:  
fitBitData.workoutsThisWeek = '6 of 7';  
fitBitData.totalMiles += 7.5;  
  
//Adding a new property  
fitBitData.heartStillBeating = true;
```

ARRAYS + OBJECTS



```
const shoppingCart = [
  {
    product: 'Jenga Classic',
    price: 6.88,
    quantity: 1,
  },
  {
    product: 'Echo Dot',
    price: 29.99,
    quantity: 3
  },
  {
    product: 'Fire Stick',
    price: 39.99,
    quantity: 2
  }
]
```

```
const student = {
  firstName: 'David',
  lastName: 'Jones',
  strengths: ['Music', 'Art'],
  exams: {
    midterm: 92,
    final: 88
  }
}
```