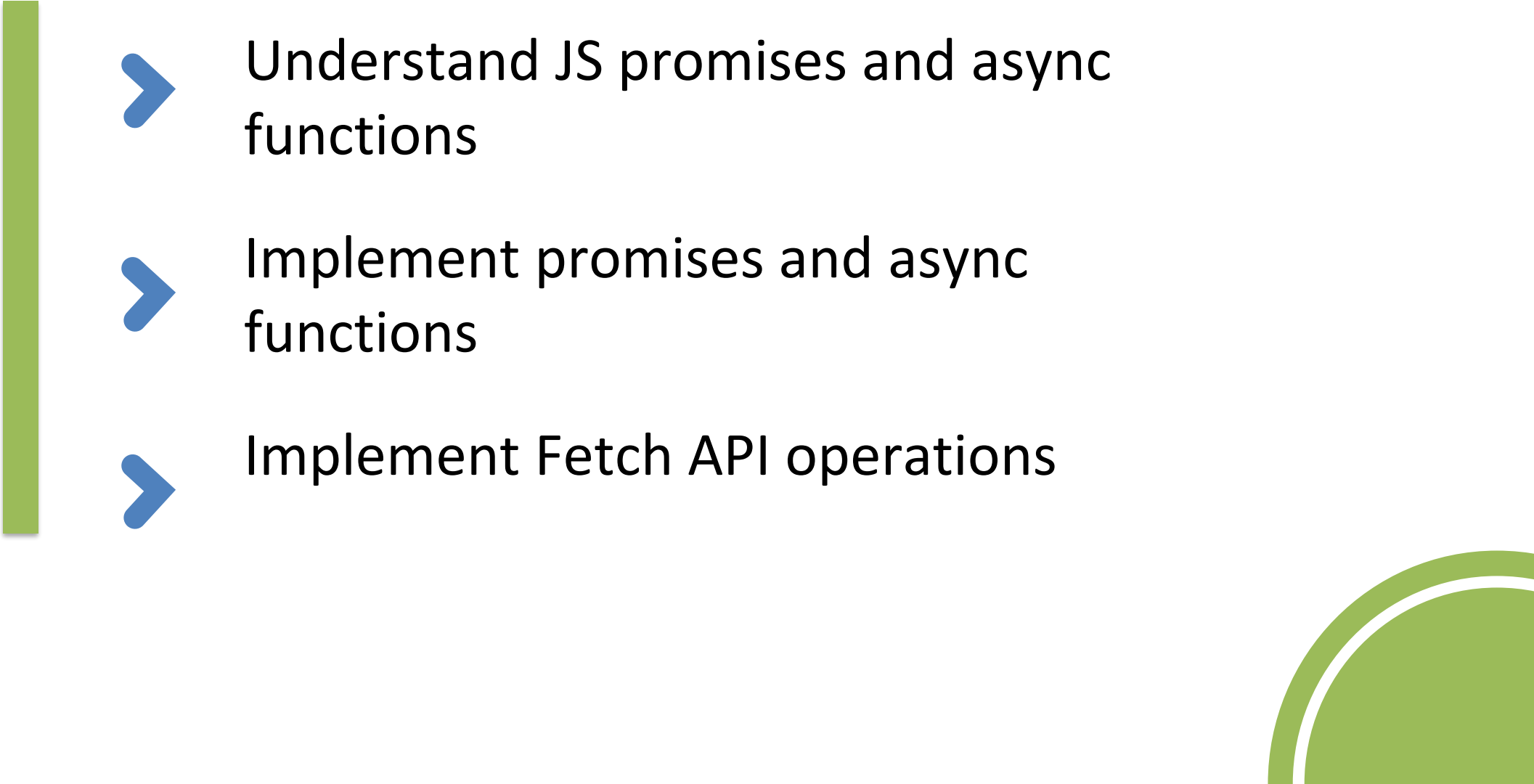


# Promises and Async Functions



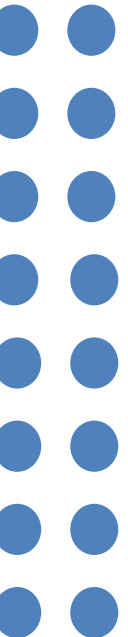
# LESSON OBJECTIVES

- 
- Understand JS promises and async functions
  - Implement promises and async functions
  - Implement Fetch API operations

# Promises & Asynchronous functions

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- These concepts will allow us to run asynchronous code.(where we have to wait for existing code to run before executing new code we created)
- Promises were introduced in ES6/ES2015.
- Async and await was introduced ES7/ECMAScript 2017.



# Promises

- new Promise
- resolve and reject
- conditional statement
- .then
- fulfilled

```
let workout = true
function exercise(){
  return new Promise((resolve, reject)=>{
    //1st way for condition
    if(workout == true){
      resolve('The exercised today')
    } else{
      reject('No exercise happened for this couch potato')
    }
  })
}
exercise().then(fulfilled=>{
  console.log(fulfilled);
})
```

```
let workout = true
let exercise= function(){
  return new Promise((resolve, reject)=>{
    //1st way for condition
    if(workout == true){
      resolve('They exercised today')
    } else{
      reject('No exercise happened for this couch potato')
    }
  })
}
exercise().then(function(fullfilled){
  console.log(fullfilled);
});
```



# Asynchronous Functions

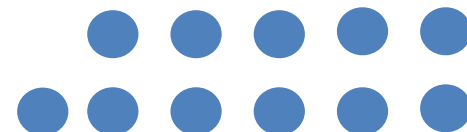
- async
- await

```
let workout = true

async function exercise(){
  let work = await workout

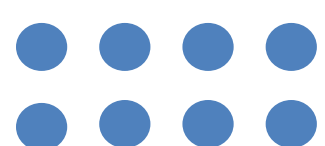
  //other code
}

exercise()
```



# Application programming interface (API)

- An API is a way for two or more computer programs or components to communicate with each other.
- It can be connected to a database or it can be hosting data in the form of JSON data (JavaScript Object Notation).
- API used in next example:  
<https://mdn.github.io/learning-area/javascript/apis/fetching-data/can-store/products.json>



# Fetching data from API – Promises

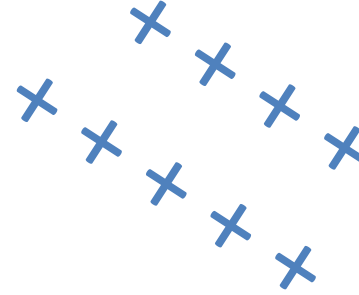
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```
fetch('https://mdn.github.io/learning-area/javascript/
apis/fetching-data/can-store/products.json')
  .then(function(res){
    return res.json()
  }).then(function(data){
    console.log(data)
  })
```

- fetch
- 1st .then
- 2nd .then

# Fetching data from API – Functions

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```
async function fetchData(){  
  let res = await fetch('https://mdn.github.io/  
learning-area/javascript/apis/fetching-data/  
can-store/products.json')  
  let data = res.json()  
  console.log(data);  
}  
fetchData()
```

- async
- await
- .json()

