

## AWT PRACTICAL-3 PRODUCT-API

### Implementation

#### Part-1

1. Create API
  1. Use JSON file which contains various products details such as product\_id, product\_name, product\_type, product\_image, product\_quantity, product\_cost and description.
  2. Create 5 products sets in JSON.
2. Display all product information on console and also on client browser. [ Create server first]
3. Define following routes to access page.
  1. localhost/ [By default display default page as below]
  2. localhost/default
  3. localhost/api
  4. localhost/product
  5. localhost/product?id=0 [By default]
  6. localhost/anyother then display page not found with status code.

#### Part-2 [HTML template/placeholder] - Define placeholder and replace by the content dynamically

1. Create HTML templates for 1. Default page 2. Product page and 3. CardInfo page
  1. Default page: Display products information from JSON such as ID, Name, Type and Price in different cards/sections [You may use DIV/FIGURE]
  2. Default page contain tag like **20% Discount** on some specific products.
  3. Default page contain link like **more details to** view individual product information [Display remaining info from JSON]
  4. All the individual product with respective cards should be accessible using URI like localhost/product?id=0 and so on.
  5. Use proper CSS style or any bootstrap theme.
2. Upload Instruction: PDF file with code and screenshots of each output.

## Index.js

```
const fs = require('fs');
const http = require('http');
const url = require('url');

const replaceTemplate = (temp,product)=>{

let output = temp.replace(/{%name%}/g,product.name);
output = output.replace(/{%image%}/g,product.image);
output = output.replace(/{%quantity%}/g,product.quantity);
output = output.replace(/{%cost%}/g,product.cost);
output = output.replace(/{%description%}/g,product.description);
output = output.replace(/{%type%}/g,product.type);
output = output.replace(/{%id%}/g,product.id);
output = output.replace(/{%discount%}/g,product.discount);
if(!product.organic) output = output.replace(/{%NOT_ORGANIC%}/g, 'not-organic');
return output;
}

const tempOverview = fs.readFileSync(`${__dirname}/template-overview.html`, 'utf-8');
const tempCard = fs.readFileSync(`${__dirname}/template-card.html`, 'utf-8');
const tempProduct = fs.readFileSync(`${__dirname}/template-product.html`, 'utf-8');

const data = fs.readFileSync(`${__dirname}/data.json`, 'utf-8');
const dataObj = JSON.parse(data);

//Create Server
const server = http.createServer((req, res) => {
  //res.end('hello from the server');
  //console.log(req.url);
  //console.log(url.parse(req.url, true));
  const { query, pathname } = url.parse(req.url, true);

  //const pathName = req.url;

  // Overview page
  if(pathname === '/' || pathname === '/default'){
    //res.end('This is OVERVIEW');
    res.writeHead(200, { 'Content-type': 'text/html'})

    const cardsHtml = dataObj.map(el => replaceTemplate(tempCard, el));
```

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```
//console.log(cardsHtml);
const output = tempOverview.replace('{%product-cards%}', cardsHtml);
//res.end(tempOverview);
res.end(output);

// Product page
} else if (pathname === '/product'){
  res.writeHead(200, { 'Content-type': 'text/html' });
  const product = dataObj[query.id];
  const output = replaceTemplate(tempProduct, product);
  //console.log(query);
  //res.end('This is the Product!');
  res.end(output);

// API page
}else if(pathname === '/api'){
  res.writeHead(200, { 'Content-type': 'application/json' })
  res.end(data);

// Not found
}else{
  res.writeHead(404,{
    'Content-type': 'text/html',
    'my-own-header': 'hello-world'
  });
  res.end('<h1>Page not found!</h1>');
}
});

// Server Listening
server.listen(8000, '127.0.0.1', ()=>{
  console.log('Listening request on port 8000');
});
```

### data.json

```
[
  {
    "id": 0,
    "name": "kiwis",
    "type": "fruite",
    "image": "🥝",
    "quantity": "4 🥝",
    "cost": "6.50",
```

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```
    "discount": "20%",
    "description": "hello i am mrs.Kiwi"
  },
  {
    "id": 1,
    "name": "lemons",
    "type": "fruite",
    "image": "🍋",
    "quantity": "4 🍋",
    "cost": "6.50",
    "discount": "--",
    "description": "hello i am mrs.lemons"
  },
  {
    "id": 2,
    "name": "pears",
    "type": "fruite",
    "image": "🍏",
    "quantity": "4 🍏",
    "cost": "6.50",
    "discount": "20%",
    "description": "hello i am mr.pears"
  },
  {
    "id": 3,
    "name": "tomatoes",
    "type": "fruite",
    "image": "🍅",
    "quantity": "4 🍅",
    "cost": "6.50",
    "discount": "--",
    "description": "hello i am mr.tomatoes"
  },
  {
    "id": 4,
    "name": "cherries",
    "type": "fruite",
    "image": "🍒",
    "quantity": "4 🍒",
    "cost": "6.50",
    "discount": "20%",
    "description": "hello i am miss.cherries"
  }
}
```

]

## template-overview.html

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>

  <style>
    *,
    *::before,
    *::after {
      margin: 0;
      padding: 0;
      box-sizing: inherit;
    }

    html {
      font-size: 62.5%;
      box-sizing: border-box;
    }

    body {
      padding: 5rem 5rem 10rem;
      line-height: 1.7;
      font-family: 'Nunito Sans', sans-serif;
      color: #555;
      min-height: 100vh;
      /* background: linear-gradient(to bottom right, #9be15d, #00e3ae); */
      background: linear-gradient(to bottom right, #5d8be1, #aaf9fc);
    }

    h1 {
      font-family: 'Megrim', sans-serif;
      font-size: 6rem;
      color: white;
      transform: skewY(-5deg);
      text-align: center;
      position: relative;
      word-spacing: 3px;
    }

    h1::before {

```

```

    content: '';
    display: block;
    height: 65%;
    width: 49%;
    position: absolute;
    top: 105%;
    left: 50%;
    background: linear-gradient(to bottom, #5d8be1, #aaf9fc);
    opacity: 0.8;
    z-index: -1;
    transform: skewY(370deg) translate(-50%, -50%);
}

.container {
    width: 95rem;
    margin: 0 auto;
}

.cards-container {
    margin-top: 8rem;
}

.card {
    background: white;
    box-shadow: 0 2rem 6rem 1rem rgba(0, 0, 0, 0.15);
    margin-bottom: 5rem;
    transform: skewX(-20deg);
    display: flex;
    transition: all 0.5s;
}

.card__emoji {
    font-size: 5.5rem;
    line-height: 1.2;
    padding: 1.5rem 6rem 0.5rem 1.5rem;
    letter-spacing: -4rem;
    transform: skewX(20deg);
}

.card__title-box {
    background: linear-gradient(to bottom, #9be15d, #00e3ae);
    margin-right: auto;
    display: flex;
    align-items: center;
    padding: 0 3rem;

```

```

}

.card__title {
  font-family: 'Megrin', sans-serif;
  color: white;
  font-size: 3.25rem;
  transform: skewX(20deg);
}

.card__details {
  display: flex;
}

.card__detail-box {
  align-self: stretch;
  border-right: 1px solid #ddd;
  display: flex;
  align-items: center;
}

.card__detail-box:last-child {
  border: none;
}

.card__detail {
  font-weight: 400;
  font-size: 1.8rem;
  transform: skewX(20deg);
  padding: 1.75rem;
}

.card__detail--organic {
  font-weight: 900;
  text-transform: uppercase;
  font-size: 1.9rem;
  background-image: linear-gradient(to right, #9be15d, #00e3ae);
  -webkit-background-clip: text;
  background-clip: text;
  color: transparent;
}

.card__detail--price {
  font-weight: 900;
  font-size: 1.9rem;
}

```

```

.card__link:link,
.card__link:visited {
  flex: 0 0 auto;
  background-color: #79e17b;
  color: white;
  font-size: 1.6rem;
  font-weight: 900;
  text-transform: uppercase;
  text-decoration: none;
  padding: 2.5rem;
  text-align: center;
  display: flex;
  align-items: center;
  justify-content: center;
  transition: all 0.3s;
}

.card__link:hover,
.card__link:active {
  background-color: #9be15d;
}

.card__link span {
  transform: skewX(20deg);
}

.card:hover {
  transform: skewX(-20deg) scale(1.08);
  box-shadow: 0 3rem 8rem 2rem rgba(0, 0, 0, 0.15);
}

.emoji-left {
  font-size: 2rem;
  margin-right: 1rem;
}

.emoji-right {
  font-size: 2rem;
  margin-left: 1rem;
}

.not-organic {
  display: none;
}

```



```

    </style>

</head>
<body>
    <div class="container">
        <h1>🔑 Node mart 🔑 </h1>

        <div class="cards-container">
            {%product-cards%}

        </div>
    </div>

</body>
</html>

```

## template-product.html

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>{%name%} {%image%}</title>
    <style>
        *,
        *::before,
        *::after {
            margin: 0;
            padding: 0;
            box-sizing: inherit;
        }

        html {
            font-size: 62.5%;
            box-sizing: border-box;
        }

        body {
            padding: 5rem 5rem 10rem;
            line-height: 1.7;
            font-family: 'Nunito Sans', sans-serif;
            color: #555;

```

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```
    min-height: 100vh;
    background: linear-gradient(to bottom right, #5d8be1, #aaf9fc);
}

h1 {
    font-family: 'Megrim', sans-serif;
    font-size: 6rem;
    color: white;
    transform: skewY(-5deg);
    text-align: center;
    position: relative;
    word-spacing: 3px;
}

h1::before {
    content: '';
    display: block;
    height: 65%;
    width: 49%;
    position: absolute;
    top: 105%;
    left: 50%;
    background: linear-gradient(to bottom, #5d8be1, #aaf9fc);
    opacity: 0.8;
    z-index: -1;
    transform: skewY(370deg) translate(-50%, -50%);
}

.container {
    width: 95rem;
    margin: 0 auto;
}

.product {
    width: 60rem;
    margin: 0 auto;
    margin-top: 9rem;
    background: white;
    box-shadow: 0 3rem 6rem 1rem rgba(0, 0, 0, 0.2);
    position: relative;
}

.product__hero {
    position: relative;
    height: 22rem;
```

```
        overflow: hidden;
    }

    .product__hero::before {
        content: '';
        display: block;
        height: 100%;
        width: 100%;
        position: absolute;
        top: 0;
        left: 0;
        background-image: linear-gradient(to left bottom, #9be15d, #00e3ae);
        opacity: 0.5;
        z-index: 100;
    }

    .product__emoji {
        font-size: 15rem;
        position: absolute;
    }

    .product__emoji--1 {
        top: -4rem;
        left: -2rem;
        z-index: 10;
    }

    .product__emoji--2 {
        top: -6rem;
        left: 9rem;
    }

    .product__emoji--3 {
        top: -4rem;
        right: 15rem;
    }

    .product__emoji--4 {
        top: -5rem;
        right: 2rem;
        z-index: 10;
    }

    .product__emoji--5 {
        bottom: -9rem;
```

```

        left: 18rem;
    }

    .product__emoji--6 {
        bottom: -8rem;
        left: 5rem;
    }

    .product__emoji--7 {
        bottom: -12rem;
        right: 14rem;
    }

    .product__emoji--8 {
        bottom: -8rem;
        right: -2rem;
    }

    .product__emoji--9 {
        top: -7rem;
        left: 19rem;
    }

    .product__organic {
        position: absolute;
        top: -4rem;
        right: -4rem;
        z-index: 1000;
        height: 11rem;
        width: 11rem;
        background-image: linear-gradient(to bottom, #9be15d, #00e3ae);
        border-radius: 50%;
        transform: rotate(15deg);
        box-shadow: 0 2rem 4rem rgba(0, 0, 0, 0.4);
        display: flex;
        align-items: center;
        justify-content: center;
    }

    .product__organic h5 {
        font-weight: 900;
        text-transform: uppercase;
        font-size: 1.8rem;
        color: white;
    }

```

```
.product__back:link,
.product__back:visited {
  position: absolute;
  top: 2rem;
  left: 2rem;
  font-size: 1.5rem;
  font-weight: 700;
  text-transform: uppercase;
  text-decoration: none;
  z-index: 1000;
  color: #555;
  background-color: white;
  box-shadow: 0 1rem 3rem rgba(0, 0, 0, 0.3);
  border-radius: 100rem;
  padding: 0 2rem;
  transition: all 0.3s;
  display: flex;
  align-items: center;
}

.product__back:hover,
.product__back:active {
  background-color: #79e17b;
}

.product__name {
  background: linear-gradient(to bottom, #9be15d, #00e3ae);
  padding: 1rem;
  font-family: 'Megrim', sans-serif;
  font-size: 4rem;
  color: white;
  text-align: center;
  word-spacing: 2px;
}

.product__details {
  background-color: #eee;
  padding: 4rem 6rem;
  font-size: 1.9rem;
  display: grid;
  grid-template-columns: 1fr 1fr;
  grid-gap: 1.5rem;
}
```

```
.product__description {
  padding: 5rem 6rem;
  font-size: 1.9rem;
  line-height: 1.8;
}

.product__link:link,
.product__link:visited {
  display: block;
  background-color: #79e17b;
  color: white;
  font-size: 1.6rem;
  font-weight: 700;
  text-transform: uppercase;
  text-decoration: none;
  padding: 1.5rem;
  text-align: center;
  transform: scale(1.07) skewX(-20deg);
  box-shadow: 0 2rem 6rem rgba(0, 0, 0, 0.2);
  display: flex;
  align-items: center;
  justify-content: center;
  transition: all 0.3s;
}

.product__link:hover,
.product__link:active {
  background-color: #9be15d;
  transform: scale(1.1) skewX(-20deg);
}

.product__link span {
  transform: skewX(20deg);
}

.emoji-left {
  font-size: 2rem;
  margin-right: 1rem;
}

.emoji-right {
  font-size: 2rem;
  margin-left: 1rem;
}
```

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```
.not-organic {
  display: none;
}
</style>
</head>
<body>
  <div class="container">
    <h1>👋 Node mart 🛒 </h1>

    <figure class="product">
      <div>
        <h3>Organic</h3>
      </div>
      <a href="/default" class="product__back">
        <span class="emoji-left">🏠</span>Back
      </a>
      <div class="product__hero">
        <span class="product__emoji product__emoji--1">{%image%}</span>
        <span class="product__emoji product__emoji--2">{%image%}</span>
        <span class="product__emoji product__emoji--3">{%image%}</span>
        <span class="product__emoji product__emoji--4">{%image%}</span>
        <span class="product__emoji product__emoji--5">{%image%}</span>
        <span class="product__emoji product__emoji--6">{%image%}</span>
        <span class="product__emoji product__emoji--7">{%image%}</span>
        <span class="product__emoji product__emoji--8">{%image%}</span>
        <span class="product__emoji product__emoji--9">{%image%}</span>
      </div>
      <h2 class="product-name">{%name%}</h2>
      <div>
        <p><span class="emoji-left">🌍</span>type {%type%}</p>
        <p><span class="emoji-left">❤️</span>{%quantity%}</p>
        <p><span class="emoji-left">📦</span>{%cost%}</p>
      </div>
      <a href="#" class="product__link">
        <span class="emoji-left">🛒</span>
        <span>Add to shopping cart ( {%cost%} )</span>
      </a>
      <p class="product__discription">
        {%description%}
      </p>
    </figure>
  </div>
</body>
</html>
```

## template-card.html

```

<figure class="card">
  <div class="card__emoji">
    {%image%}{%image%}
  </div>

  <div class="card__title-box">
    <h2 class="card__title">{%name%}</h2>
  </div>

  <div class="card__details">
    <div class="card__detail-box">
      <h6 class="card__detail card__detail--organic">
        Organic!
      </h6>
    </div>

    <div class="card__detail-box">
      <h6 class="card__detail">{%quantity%} per 🍷</h6>
    </div>

    <div class="card__link">
      <h6 class="card__detail card__detail--
price"> {%cost%} $ </h6>
      <h6 class="card__detail card__detail--
price"> discount:{%discount%}</h6>
    </div>
  </div>

  <a class="card__link" href="/product?id={%id%}">
    <span>Detail <i class="emoji-right">👉</i></span>
  </a>
</figure>

```



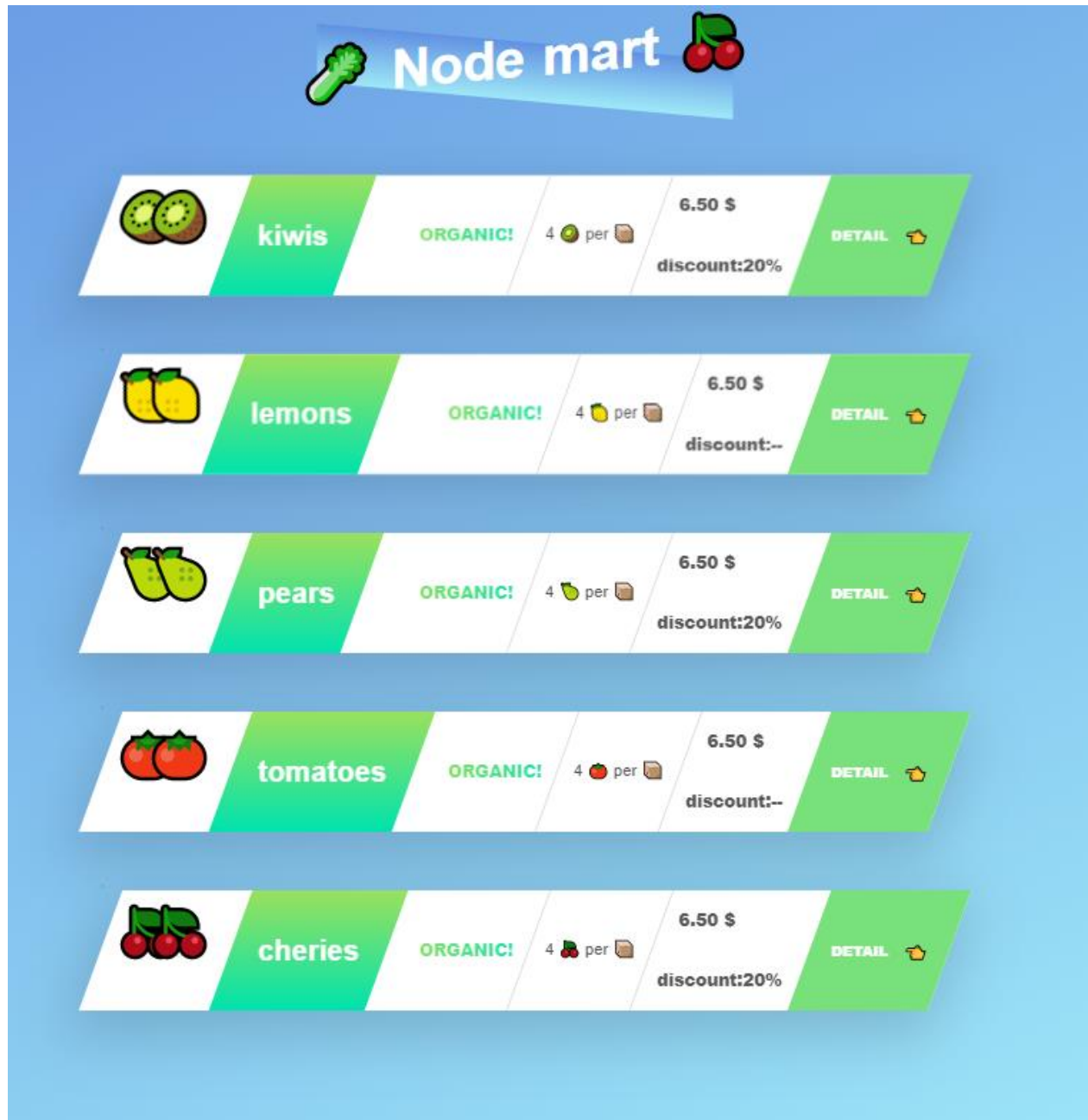
## OUTPUT

localhost/api

```
[
  {
    "id": 0,
    "name": "kiwis",
    "type": "fruite",
    "image": "🥝",
    "quantity": "4 🥝",
    "cost": "6.50",
    "discount": "20%",
    "description": "hello i am mrs.Kiwi"
  },
  {
    "id": 1,
    "name": "lemons",
    "type": "fruite",
    "image": "🍋",
    "quantity": "4 🍋",
    "cost": "6.50",
    "discount": "--",
    "description": "hello i am mrs.lemons"
  },
  {
    "id": 2,
    "name": "pears",
    "type": "fruite",
    "image": "🍏",
    "quantity": "4 🍏",
    "cost": "6.50",
    "discount": "20%",
    "description": "hello i am mr.pears"
  },
  {
    "id": 3,
    "name": "tomatoes",
    "type": "fruite",
    "image": "🍅",
    "quantity": "4 🍅",
    "cost": "6.50",
    "discount": "--",
    "description": "hello i am mr.tomatoes"
  },
  {
    "id": 4,
    "name": "cherries",
    "type": "fruite",
    "image": "🍒",
    "quantity": "4 🍒",
    "cost": "6.50",
    "discount": "20%",
    "description": "hello i am miss.cherries"
  }
]
```

## AWT PRACTICAL-3 PRODUCT-API

localhost:8000/default

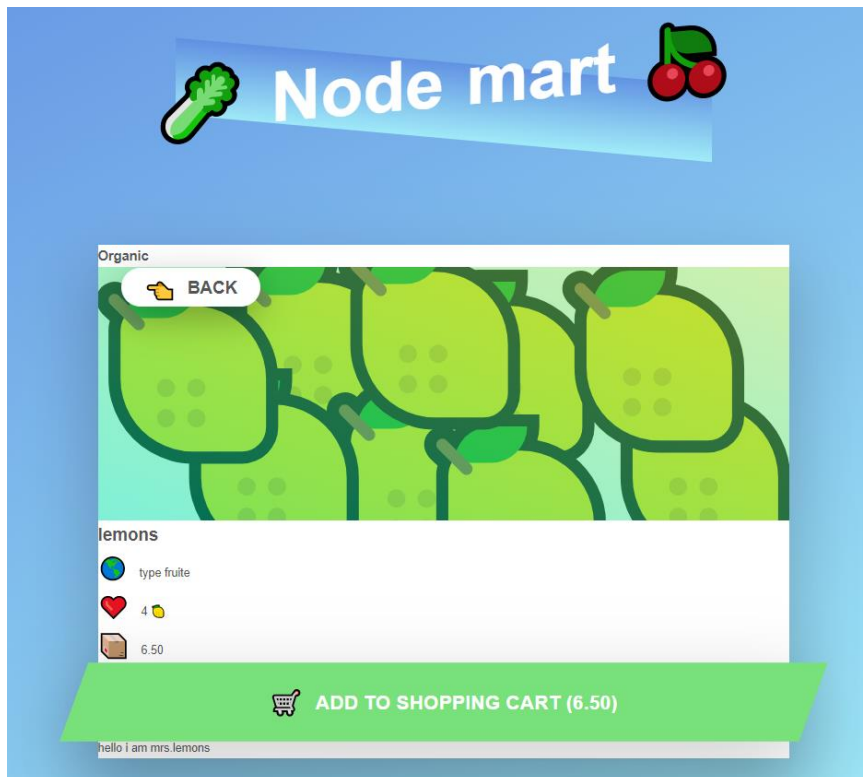


## AWT PRACTICAL-3 PRODUCT-API

localhost:8000/product?id=0



localhost:8000/product?id=1



localhost:8000/product?id=2



localhost:8000/product?id=3



localhost:8000/product?id=4

