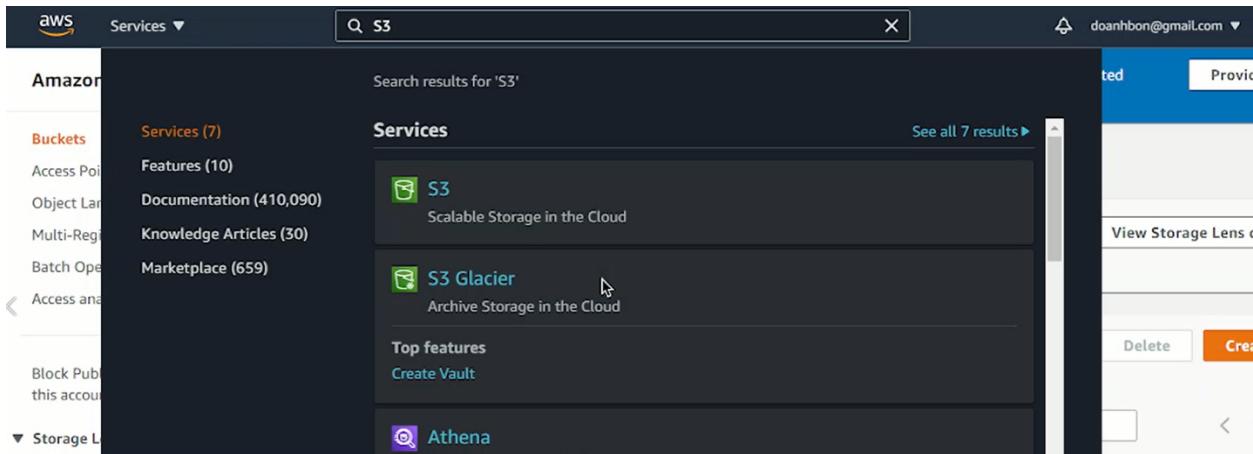


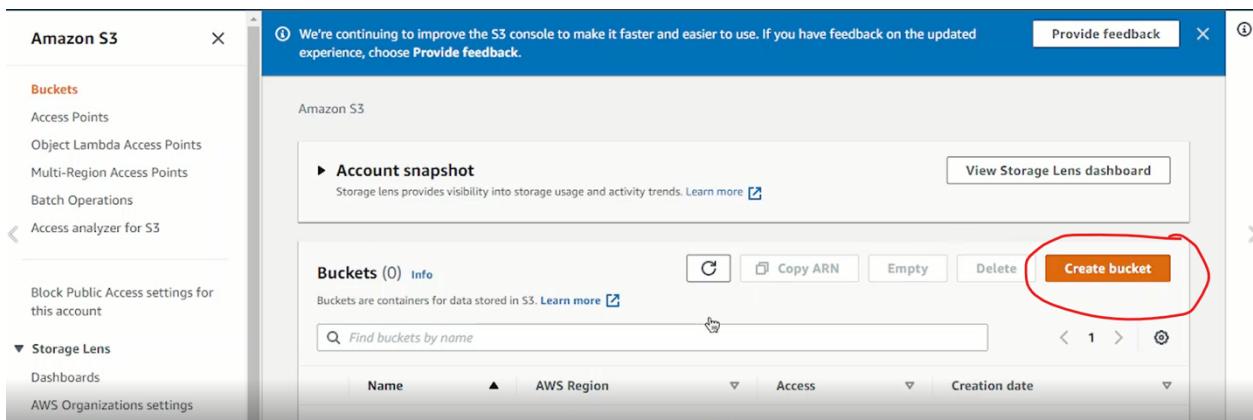
Thực hành Tuần 7

Upload file vào Amazon S3:

Bước 1: Truy cập vào service S3 của AWS:



Bước 2: Bấm Create bucket:



Bước 3: Nhập tên bucket cần tạo (uploads3_toturial_bucket):

Buckets are containers for data stored in S3. [Learn more](#)

General configuration

Bucket name

uploads3_tutorial_bucket

Bucket name must be unique and must not contain spaces or uppercase letters. [See rules for bucket naming](#)

AWS Region

Bỏ chọn *Block all public access*:

Block all public access
Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

Block public access to buckets and objects granted through new access control lists (ACLs)
S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.

Block public access to buckets and objects granted through any access control lists (ACLs)
S3 will ignore all ACLs that grant public access to buckets and objects.

Block public access to buckets and objects granted through new public bucket or access point policies
S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.

Bấm *Create bucket*.

Bước 4: Tạo 1 CloudFront Distribution:

Welcome to the new AWS CloudFront console experience.
We've redesigned the CloudFront console to make it easier to use while still feeling familiar. We encourage you to try it out and let us know what you think. If you need to, you can go back to the old console until September 14.

Distributions

Policies

Functions NEW

What's new

Telemetry

Monitoring

Alarms

Logs

Reports & analytics

Cache statistics

Popular objects

CloudFront > Distributions

Distributions (1) Info

Search all distributions

ID Descript... Domain ... Alternat... Origins Status Last mo...

E144X410BYIL6Y - d1uxy45o0... baitapvenha.s3.ap-southeast-1.amazonaws.com Enabled August 29, 2023

Enable Disable Delete Create distribution

CloudFront > Distributions > create

Create distribution

Origin

Origin domain

Choose an AWS origin, or enter your origin's domain name.

Enter a name for this origin.

S3 bucket access [Info](#)
Use a CloudFront origin access identity (OAI) to access the S3 bucket.

Don't use OAI (bucket must allow public access)
 Yes use OAI (bucket can restrict access to only CloudFront)

Origin access identity
Select an existing origin access identity (recommended) or create a new identity.

Bucket policy
Update the S3 bucket policy to allow read access to the OAI.
 No, I will update the bucket policy
 Yes, update the bucket policy

Add custom headers... optional

S3 bucket access [Info](#)
Use a CloudFront origin access identity (OAI) to access the S3 bucket.

Don't use OAI (bucket must allow public access)
 Yes use OAI (bucket can restrict access to only CloudFront)

Origin access identity
Select an existing origin access identity (recommended) or create a new identity.

Bucket policy
Update the S3 bucket policy to allow read access to the OAI.
 No, I will update the bucket policy
 Yes, update the bucket policy

Sau đó bấm *Create distribution*. Chú ý domain name của distribution vừa tạo.

The screenshot shows the AWS CloudFront distribution details page. The distribution domain name is listed as `d36efrqlwsnmc1.cloudfront.net`. This field is circled in red.

Bước 5: Update file `index.ejs` theo mẫu sau:

```

Views > <x> index.ejs > <x> html > <x> body > <x> div.content > <x> form#delete > <x> table > <x> ? > <x> tr > <x> td
  ...
  4   <meta charset="UTF-8" />
  5   <meta name="viewport" content="width=device-width, initial-scale=1.0" />
  6   <link rel="stylesheet" href="index.css" />
  7   </head>
  8   <body>
  9     <div class="content">
 10       <form id="create" method="POST" action="/" enctype="multipart/form-data">
 11         <input type="number" name="ma_sp" placeholder="ID sản phẩm" />
 12         <input type="text" name="ten_sp" placeholder="Tên sản phẩm" />
 13         <input type="number" name="so_luong" placeholder="Số lượng sản phẩm" />
 14         <input type="file" name="image" /> (highlighted)
 15         <input type="submit" value="Submit" />
 16       </form>
 17       <form id="delete" method="POST" action="/" enctype="multipart/form-data">
 18         <div class="title"><h5>Danh sách sản phẩm</h5><input type="submit" value="Xóa" /></div>
 19         <table border="1">
 20           <tr>
 21             <th>Ma SP</th>
 22             <th>Ten SP</th>
 23             <th>So Luong</th>
 24             <th>Hinh anh</th>
 25             <th>Chon</th>
 26           </tr>
 27           <% for (let i = 0; i < sanPhams.length; i++) { %>
 28             <tr>
 29               <td><%=sanPhams[i].ma_sp%></td>
 30               <td><%=sanPhams[i].ten_sp%></td> (highlighted)
 31               <td><%=sanPhams[i].so_luong%></td>
 32               <td></td> (highlighted)
 33               <td><input type="checkbox" name="<%=sanPhams[i].ma_sp%>" /></td>
 34             </tr>
 35           <% } %>
 36         </table>
 37       </form>
 38     </div>
 39   </body>
 40 </html>

```

Bước 6: Import thư viện uuid trong file *index.js*

```
1  const express = require("express");
2  const path = require('path');
3  const app = express();
4  const { v4: uuid } = require("uuid");
5
6  // config server side render MVC
7
8  app.use(express.json({ extended: false }));
```

Bước 7: Update phần *upload* middleware trong file *index.js*:

```
const multer = require('multer');

const storage = multer.memoryStorage({
  destination(req, file, callback) {
    |  callback(null, '');
  },
});

function checkFileType(file, cb) {
  const fileTypes = /jpeg|jpg|png|gif/;

  const extname = fileTypes.test(path.extname(file.originalname).toLowerCase());
  const mimetype = fileTypes.test([file.mimetype]);
  if (extname && mimetype) {
    |  return cb(null, true);
  }

  return cb("Error: Image Only");
}

const upload = multer({
  storage,
  limits: { fileSize: 2000000 }, // 2MB
  fileFilter(req, file, cb) {
    |  checkFileType(file, cb);
  },
});
```

Bước 8: Update api create item trong file *index.js*:

```
9 const CLOUD_FRONT_URL = 'https://d36efrqlwsnmc1.cloudfront.net/';
10
11 app.post('/', upload.single('image'), (req, res) => {
12   const { ma_sp, ten_sp, so_luong } = req.body;
13   const image = req.file.originalname.split('.');
14
15   const fileType = image[image.length -1];
16
17   const filePath = `${uuid() + Date.now().toString()}.${fileType}`;
18   const params = {
19     Bucket: "uploads3-toturial-bucket",
20     Key: filePath,
21     Body: req.file.buffer
22   }
23
24
25   s3.upload(params, (error, data) => {
26     if (err) {
```

Lưu ý: *CLOUD_FRONT_URL* lấy từ *cloud front distribution* vừa tạo ở bước trước.

```
s3.upload(params, (error, data) => {
  if (error) {
    console.log('error = ', error);
    return res.send('Internal Server Error');
  } else {
    const newItem = {
      TableName: tableName,
      Item: {
        "ma_sp": ma_sp,
        "ten_sp": ten_sp,
        "so_luong": so_luong,
        "image_url": `${CLOUD_FRONT_URL}${filePath}`
      }
    }

    docClient.put(newItem, (err, data) => {
      if (err) {
        console.log('error = ', error);
        return res.send('Internal Server Error');
      } else {
        return res.redirect("/");
      }
    });
  }
});
```

Bước 9: Quay lại localhost:3000 và thử nhập thông tin sản phẩm mới, kèm theo hình ảnh upload:

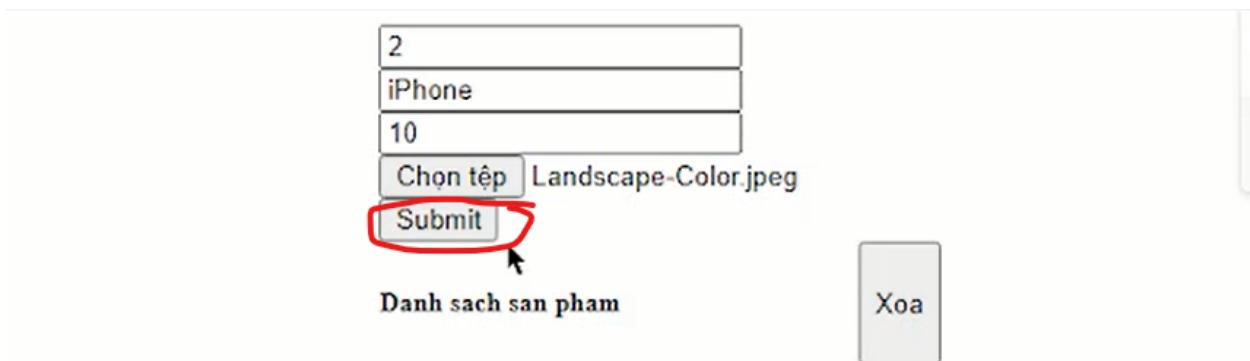
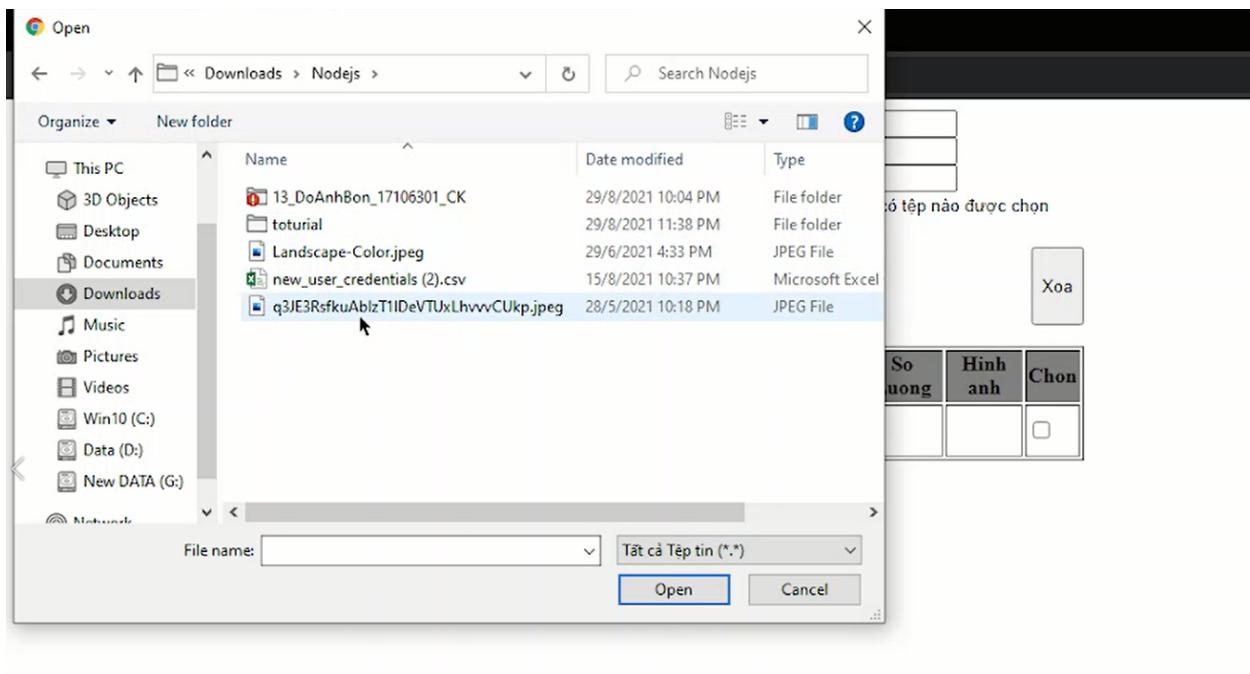
The screenshot shows a web browser window with the URL 'localhost:3000'. The page displays a form for adding a new product and a table of existing products.

Product Form:

- Input fields:
 - Ma SP: 2
 - Ten SP: iPhone
 - So Luong: 10
 - Hinh anh: A dropdown menu with 'Chon' and 'Kèm' options, with 'Kèm' highlighted by a red circle.
 - Submit button
- Buttons: 'Danh sach san pham' and 'Xoa'

Product Table:

| Ma SP | Ten SP | So Luong | Hinh anh | Chon |
|-------|----------|----------|----------|--------------------------|
| 1 | Máy tính | 4 | | <input type="checkbox"/> |



| Ma SP | Ten SP | So Luong | Hinh anh | Chon |
|-------|----------|----------|----------|--------------------------|
| 1 | Máy tính | 4 | | <input type="checkbox"/> |

- Kiểm tra lại kết quả như hình bên dưới (một sản phẩm mới có hình ảnh được thêm vào):

| |
|--|
| ID sản phẩm |
| Tên sản phẩm |
| Số lượng sản phẩm |
| <input type="button" value="Chọn tệp"/> Không có tệp nào được chọn |
| <input type="button" value="Submit"/> |

Danh sách sản phẩm Xoa

| Ma SP | Ten SP | So Luong | Hinh anh | Chon |
|-------|----------|----------|---|--------------------------|
| 2 | iPhone | 10 |  | <input type="checkbox"/> |
| 1 | Máy tính | 4 | | <input type="checkbox"/> |

- Vào bucket vừa tạo trong S3 và kiểm tra file upload 1 lần nữa:

Amazon S3

▶ Account snapshot [View Storage Lens dashboard](#)

Storage lens provides visibility into storage usage and activity trends. [Learn more](#)

Buckets (1) [Info](#) [Create bucket](#)

Buckets are containers for data stored in S3. [Learn more](#)

| Name | AWS Region | Access | Creation date |
|--|---|-----------------------|---|
| uploads3-tutorial-bucket | Asia Pacific (Singapore) ap-southeast-1 | Objects can be public | September 4, 2021, 23:06:35 (UTC+07:00) |

s3.console.aws.amazon.com/s3/buckets/uploads3-tutorial-bucket?region=ap-southeast-1&tab=objects

Amazon S3

Buckets

- Access Points
- Object Lambda Access Points
- Multi-Region Access Points
- Batch Operations
- Access analyzer for S3

Block Public Access settings for this account

Storage Lens

- Dashboards
- AWS Organizations settings

Feature spotlight

We're continuing to improve the S3 console to make it faster and easier to use. If you have feedback on the updated experience, choose [Provide feedback](#).

Objects (4)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

[Copy S3 URI](#) [Copy URL](#) [Download](#) [Open](#) [Delete](#) [Actions ▾](#)

[Create folder](#) [Upload](#)

| <input type="checkbox"/> | Name | Type | Last modified | Size | Storage class |
|--------------------------|--|------|---|--------|---------------|
| <input type="checkbox"/> | 2b5ee8c8-349e-48fd-97d6-911a006b0f701630773158149.jpeg | jpeg | September 4, 2021, 23:32:39 (UTC+07:00) | 1.3 MB | Standard |
| <input type="checkbox"/> | 96bcc3c6-47a6-4fe7-b829-29ac9ffc9b981630773193700.jpeg | jpeg | September 4, 2021, 23:33:15 (UTC+07:00) | 1.3 MB | Standard |
| <input type="checkbox"/> | afc62f21-3ab4-4e88-a301-cbb24a1f23991630773109433.jpeg | jpeg | September 4, 2021, 23:31:51 (UTC+07:00) | 1.3 MB | Standard |