

Group Project Introduction

Emart

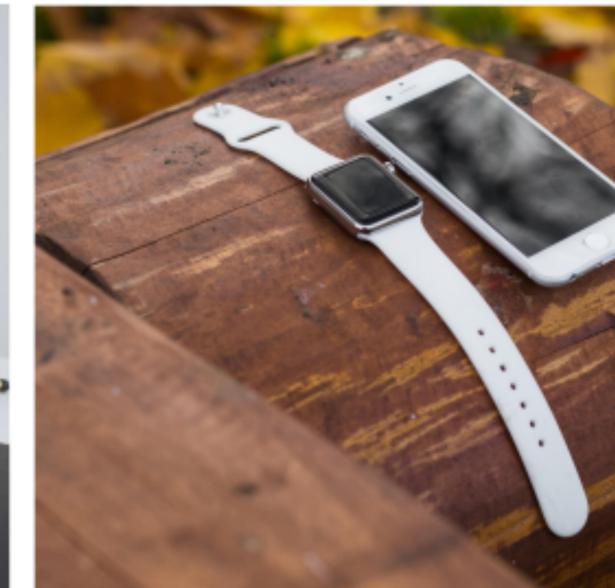
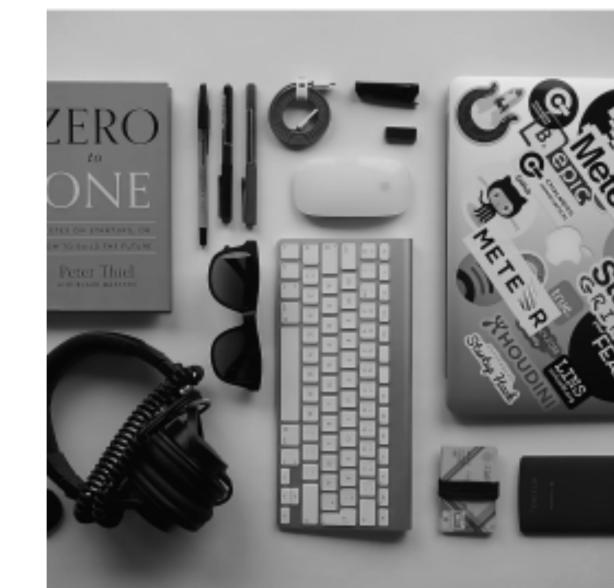
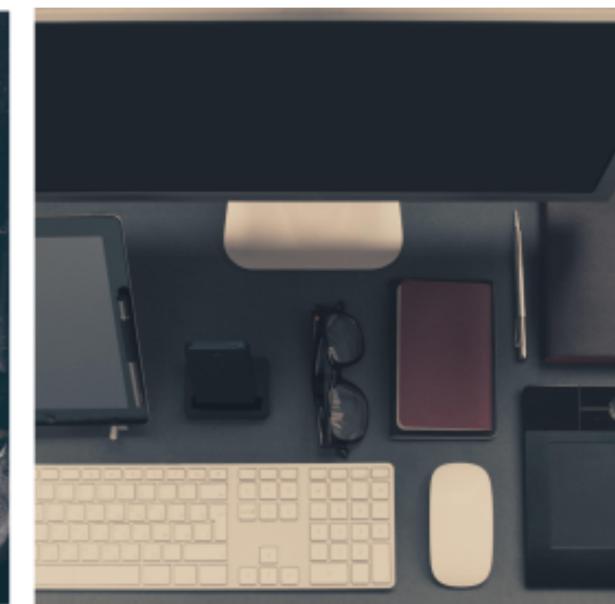
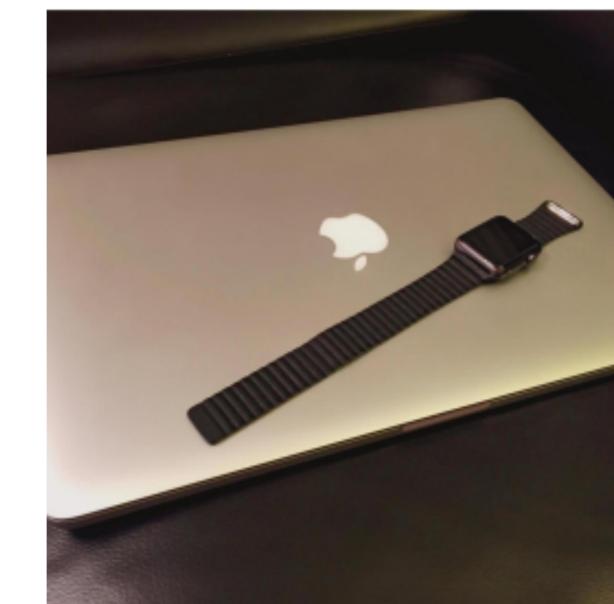
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1. the purpose of the application

E-commerce systems have been very successful in the past decades, such as Amazon, Ebay, online Walmart, etc. Besides, e-commerce systems are one of the best and classic application scenarios for utilizing the knowledge of web services.

Therefore, our team decide to build a e-commerce system based on what we learn from the class: React, Node.js, etc. The system is built for two groups: managers and users. The system provides different functionalities for them.

2. the major features of the application

For managers:

- edit product information
- change item number
- manage orders
- arrange shipment

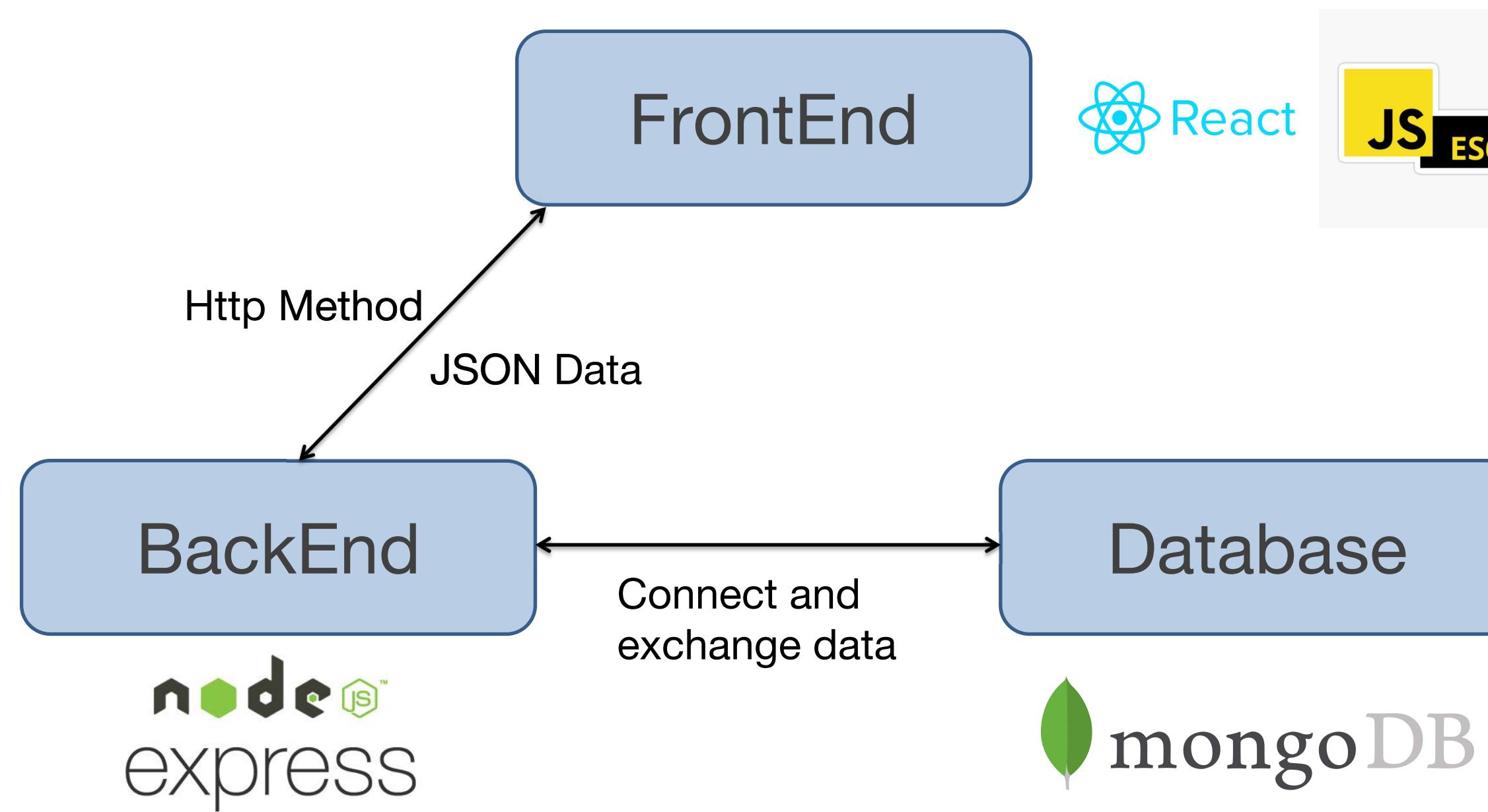
For users:

- search for items
- select items into cart
- make payment
- write a product review

3. the technologies used in the application

- JavaScript ES6
- CSS
- React.
- Node.js
- mongoDB
- Express Framework

4. the application architecture



5. external services, such as databases and authentication

(1) Database: mongoDB

The data of the products and users is not always in the same format, and it needs to be updated frequently. Non-relational database can better handle these situations. Therefore, we use mongoDB for data storage.

(2) authentication:

Code in userController.js:

```
const authUser = asyncHandler(async (req, res) => {
  const { email, password } = req.body

  const user = await User.findOne({ email })

  if (user && (await user.matchPassword(password))) {
    res.json({
      _id: user._id,
      name: user.name,
      email: user.email,
      isAdmin: user.isAdmin,
      token: generateToken(user._id),
    })
  } else {
    console.log(req.body)
    res.status(401)
    throw new Error('Invalid email or password')
  }
})
```

6. application deployment methodology

(1) Run Locally

Run code from the readme file in terminal

(2) Prepare for deployment

step1: In frontend, run: “npm run build” → get the build folder

step2: create file: Procfile → tell Heroku how to run the project

step3: add script to package.json → 'heroku-postbuild', tell Heroku how to install the project

(3) Deployment:

- sign up and login on heroku
- create eMartapp on heroku
- git push heroku master
- Done! <https://emartapp.herokuapp.com/>

7. tests performed on the code or application

Test1, register: the email has been registered.

Test2, login: wrong password.

Test3, check out: empty cart cannot be checked out.

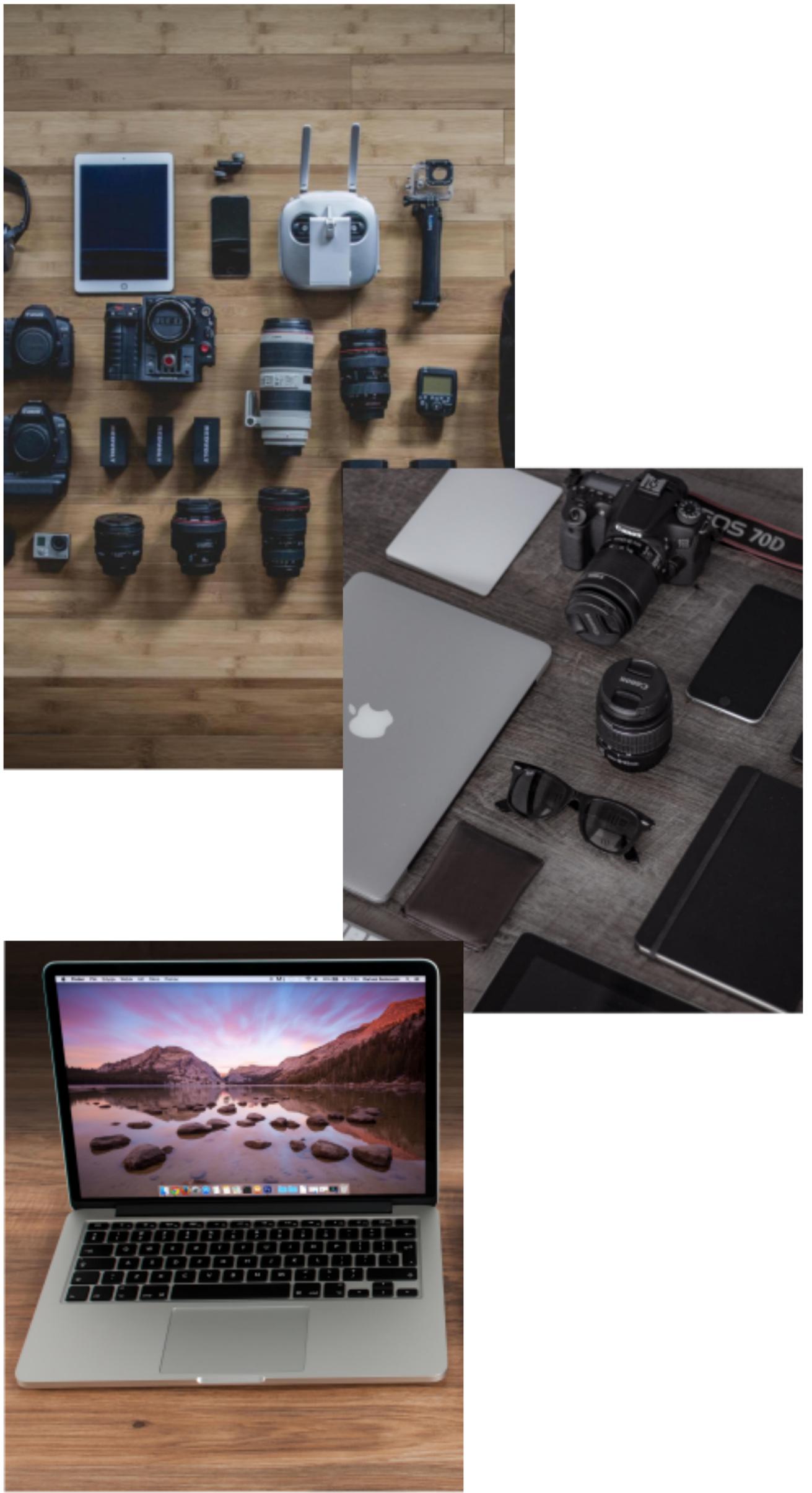
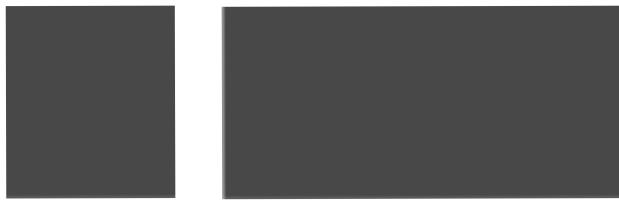
8. demonstration of the application in use

For managers:

- check user name and user email
- add and update product information
- check order details

For Users:

- update personal information
- place order
- make payment via Paypal API
- make reviews



Thank you!

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