NguyenLien Shop

Backend – NodeJS

Frontend – React/TS

Database – MySQL

IDE: VSCODE, XAMPP

**Lưu ý: Project chưa hoàn thiện, vẫn còn đang phát triển và chỉnh sửa rất nhiều thứ!*

Backend – NodeJS

/src

/src/config/

config.json

```json
{
    "development": {
        "username": "root",
        "password": null,
        "database": "nguyenlien",
        "host": "127.0.0.1",
        "dialect": "mysql",
        "logging": false,
        "timezone": "+07:00"
    },
    "test": {
        "username": "root",
        "password": null,
        "database": "database_test",
        "host": "127.0.0.1",
        "dialect": "mysql"
    },
    "production": {
        "username": "root",
        "password": null,
        "database": "database_production",
        "host": "127.0.0.1",
        "dialect": "mysql"
    }
}
```

connectDB.js

```
import { Sequelize } from 'sequelize';
import dotenv from 'dotenv';

// Load biến môi trường từ .env
dotenv.config();

// Tạo instance Sequelize dùng biến từ .env để tiện tái sử dụng
const sequelize = new Sequelize(
   process.env.DB_NAME || 'nguyenlien',
   process.env.DB_USER || 'root',
   process.env.DB_PASSWORD || null,
   {
      host: process.env.DB_HOST || 'localhost',
      port: process.env.DB_PORT || 3306,
      dialect: 'mysql',
      logging: false, // Có thể bật thành true khi debug query
   }
);

// Hàm kết nối DB
const connectDB = async () => {
   try {
      await sequelize.authenticate();
      console.log('✅ Đã kết nối MySQL thành công!');
   } catch (error) {
      console.error('❌ Kết nối MySQL thất bại:', error.message);
      process.exit(1); // Thoát chương trình nếu kết nối DB thất bại
   }
};

export default connectDB;
export { sequelize };

```

viewEngine.js

```
import express from "express";

let configViewEngine = (app) => {
   app.use(express.static("./src/public"))
   app.set("view engine", "ejs")
   app.set("views", "./src/views")
}

module.exports = configViewEngine;
```

/src/controllers/

adminController.js

```
import adminService from "../services/adminService.js";
import dotenv from 'dotenv';
dotenv.config();

```

```javascript
// =================== USER MANAGER ====================

// Get All Users or Single User
let handleGetAllUsers = async (req, res) => {
   const id = req.params.id;

   if (!id) {
      return res.status(400).json({
         errCode: 1,
         errMessage: "Missing required parameter",
         users: []
      });
   }

   try {
      const users = await adminService.getAllUsers(id);
      return res.status(200).json({
         errCode: 0,
         errMessage: "Ok",
         users
      });
   } catch (error) {
      console.error("Get Users Error:", error);
      return res.status(500).json({
         errCode: -1,
         errMessage: "Error from server"
      });
   }
};

// Delete User
let handleDeleteUser = async (req, res) => {
   const userId = req.params.id;

   if (!userId) {
      return res.status(400).json({
         errCode: 1,
         errMessage: "Missing user ID"
      });
   }

   try {
      const message = await adminService.deleteUser(userId);
      return res.status(200).json(message);
   } catch (error) {
      console.error("Delete User Error:", error);
      return res.status(500).json({
         errCode: -1,
         errMessage: "Error from server"
      });
   }
};

// Edit User
let handleEditUser = async (req, res) => {
   const data = req.body;

   if (!data || !data.id) {
      return res.status(400).json({
         errCode: 1,
         errMessage: 'Missing user ID'
      });
   }

   try {
      const message = await adminService.updateUserData(data);
      return res.status(200).json(message);
   } catch (error) {
      console.error("Edit User Error:", error);
      return res.status(500).json({
         errCode: -1,
         errMessage: "Server error while updating user"
      });
   }
};

// ==================== EXPORT ====================
export default {
   handleGetAllUsers,
   handleEditUser,
   handleDeleteUser
};

```

authController.js

```
import authService from "../services/authService.js";
import jwt from 'jsonwebtoken';
import dotenv from 'dotenv';
import sendResponse from '../utils/sendResponse.js';

dotenv.config();

const handleLogin = async (req, res) => {
   const { identifier, password } = req.body;

   if (!identifier || !password) {
      return sendResponse(res, {
         status: 400,
         errCode: 1,
         message: 'Missing inputs',
      });
   }

   const userData = await authService.loginUser(identifier, password);

   if (userData.errCode !== 0) {
      return sendResponse(res, {
         status: 401,
         errCode: userData.errCode,
         message: userData.errMessage || 'Sai thông tin đăng nhập!',
      });
   }

   const user = userData.user;

   const token = jwt.sign(
      { id: user.id, roleId: user.roleId },
      process.env.JWT_SECRET,
      { expiresIn: '1h' }
   );

   return sendResponse(res, {
      message: 'Login successful',
      token,
      data: user
   });
};

const handleRegister = async (req, res) => {
   const result = await authService.registerUser(req.body);

   return sendResponse(res, {
      status: result.errCode === 0 ? 200 : 400,
      errCode: result.errCode,
      message: result.errMessage || result.message,
   });
};

export default {
   handleLogin,
   handleRegister,
};

```

backendController.js

```
import backendService from '../services/backendService';
import { checkEmailExists, checkPhoneNumberExists, checkUserNameExists } from
'../services/validators';

let homePage = (req, res) => {
   return res.render('homePage.ejs');
};

let userManager = async (req, res) => {
   try {
      const data = await backendService.getAllUser();
      const message = req.query.message || null;
      return res.render('userManager.ejs', { dataTable: data, message });
   } catch (error) {
      console.error(error);
      return res.status(500).send('Đã xảy ra lỗi khi tải danh sách người dùng.');
   }
};

let createNewUser = (req, res) => {
   return res.render('createNewUser.ejs', {
      errorMessage: null,
      oldInput: null,
      emailError: null,
      phoneError: null,
      passwordError: null
   });
};
```

```

let postCreateNewUser = async (req, res) => {
   try {
      const { userName, password, phoneNumber, roleId, email } = req.body;

      // Trim dữ liệu
      req.body.userName = userName?.trim();
      req.body.password = password?.trim();
      req.body.phoneNumber = phoneNumber?.trim();
      req.body.email = email?.trim();

      const oldInput = req.body;

      // Validate bắt buộc
      if (!userName || !password || !roleId) {
         return res.render('createNewUser.ejs', {
            errorMessage: 'Please fill in all required fields!',
            oldInput,
            emailError: null,
            phoneError: null,
            passwordError: null
         });
      }

      // Validate password length`
      if (password.length < 6) {
         return res.render('createNewUser.ejs', {
            errorMessage: null,
            oldInput,
            passwordError: 'Password must be at least 6 characters!',
            emailError: null,
            phoneError: null
         });
      }

      // Check username exists
      const loginNameExists = await checkUserNameExists(userName);
      if (loginNameExists) {
         return res.render('createNewUser.ejs', {
            errorMessage: 'Username already exists!',
            oldInput,
            emailError: null,
            phoneError: null,
            passwordError: null
         });
      }

      // Validate phone format
      const phonePattern = /^0\d{9}$/;
      if (phoneNumber && !phonePattern.test(phoneNumber)) {
         return res.render('createNewUser.ejs', {
            errorMessage: null,
            oldInput,
            phoneError: 'Invalid phone number format (must start with 0 and be 10 digits)',
            emailError: null,
            passwordError: null
         });
      }
```

```

    // Check phone exists
    if (phoneNumber) {
      const phoneExists = await checkPhoneNumberExists(phoneNumber);
      if (phoneExists) {
        return res.render('createNewUser.ejs', {
          errorMessage: null,
          oldInput,
          phoneError: 'Phone number already exists!',
          emailError: null,
          passwordError: null
        });
      }
    }

         // Validate email format
         const emailPattern = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;
         if (email && !emailPattern.test(email)) {
           return res.render('createNewUser.ejs', {
             errorMessage: null,
             oldInput,
             emailError: 'Invalid email format!',
             phoneError: null,
             passwordError: null
           });
         }

         // Check email exists
         if (email) {
           const emailExists = await checkEmailExists(email);
           if (emailExists) {
             return res.render('createNewUser.ejs', {
               errorMessage: null,
               oldInput,
               emailError: 'Email already exists!',
               phoneError: null,
               passwordError: null
             });
           }
         }

         // Tạo người dùng
         await backendService.createNewUser(req.body);

         return res.redirect('/user-manager?message=User created successfully');
       } catch (error) {
         console.error('Error creating account: ', error);
         return res.status(500).send("An error occurred while creating the user!");
       }
     };

     let editUser = async (req, res) => {
       const userId = req.query.id;
       if (!userId) return res.status(404).send("Không tìm thấy người dùng.");

       try {
         const userData = await backendService.getUserInfoById(userId);
         return res.render("updateUser.ejs", {
```

```
         user: userData,
         error: null
      });
   } catch (error) {
      console.error(error);
      return res.status(500).send("Lỗi khi tải dữ liệu người dùng.");
   }
};

let updateUser = async (req, res) => {
   try {
      const data = req.body;
      const result = await backendService.updateUserData(data);

      if (result.errCode === 0) {
         return res.redirect('/user-manager');
      }
      else {
         return res.render("updateUser.ejs", {
            user: data,
            error: result.errMessage || 'Update user failed.',
            emailError: result.errCode === 3 ? result.errMessage : null,
            phoneError: result.errCode === 5 ? result.errMessage : null
         });
      }
   } catch (error) {
      console.error("User update error:", error);
      return res.status(500).send("An error occurred while updating the user.");
   }
};

let deleteUser = async (req, res) => {
   const id = req.query.id;
   if (!id) return res.status(404).send("Missing user!");

   try {
      const result = await backendService.deleteUserById(id);
      if (result.errCode === 0) {
         return res.redirect('/user-manager');
      } else {
         return res.status(404).send("User does not exist.");
      }

   } catch (error) {
      console.error("Error deleting user::", error);
      return res.status(500).send("An error occurred while deleting the user.");
   }
};

export default {
   homePage,
   userManager,
   createNewUser,
   postCreateNewUser,
   editUser,
   updateUser,
   deleteUser,
        };

```

userController.js

```
import userService from "../services/userService";
import dotenv from 'dotenv';
dotenv.config();

let handleGetUserProfile = async (req, res) => {
   try {
      const userId = req.user?.id;

      if (!userId) {
         return res.status(401).json({
            errCode: 1,
            message: 'Unauthorized',
         });
      }

      const user = await userService.getUserInfoById(userId);
      if (!user) {
         return res.status(404).json({
            errCode: 2,
            message: 'User not found',
         });
      }

      return res.status(200).json({
         errCode: 0,
         message: 'Success',
         data: user,
      });
   } catch (error) {
      console.error(error);
      return res.status(500).json({
         errCode: -1,
         message: 'Server error',
      });
   }
};

let handleEditUserProfile = async (req, res) => {
};

let updateAddress = async (req, res) => {

};

let updateEmail = async (req, res) => {

};

let updatePhoneNumber = async (req, res) => {

};

let changePassword = async (req, res) => {
};

export default {
   handleGetUserProfile: handleGetUserProfile,
   handleEditUserProfile: handleEditUserProfile,
   updateAddress: updateAddress,
   updateEmail: updateEmail,
   updatePhoneNumber: updatePhoneNumber,
   changePassword: changePassword
};
```

/src/middlewares/

authMiddleware.js

```
import jwt from 'jsonwebtoken';
import dotenv from 'dotenv';
dotenv.config(); // để đọc biến .env

const secret = process.env.JWT_SECRET;

export const verifyToken = (req, res, next) => {
    const token = req.headers.authorization?.split(' ')[1]; // Bearer <token>

    if (!token) {
        return res.status(401).json({ message: 'Token not provided!' });
    }

    try {
        const decoded = jwt.verify(token, secret);
        req.user = decoded; // thêm info user vào req
        next();
    } catch (err) {
        return res.status(403).json({ message: 'Invalid or expired token' });
    }
};

export const checkOwner = (req, res, next) => {
    const loggedInUserId = req.user?.id;
    const targetUserId = parseInt(req.params.id);

    if (loggedInUserId !== targetUserId) {
        return res.status(403).json({ message: 'Access denied: Not owner' });
    }
    next();
};

export const isRole = (requiredRoleId) => {
    return (req, res, next) => {
        if (req.user?.roleId !== requiredRoleId) {
            return res.status(403).json({ message: 'Access denied' });
        }
        next();
    };
};
```

```

```

validateBodyFieds.js

```
const validateBodyFields = (requiredFields = []) => {
   return (req, res, next) => {
      const missing = requiredFields.filter(field => !req.body[field]);

      if (missing.length > 0) {
         return res.status(400).json({
            errCode: 1,
            message: `Missing fields: ${missing.join(', ')}`,
         });
      }

      next();
   };
};

export default validateBodyFields;

```

/src/migration/

migration-allcode.js

```
'use strict';
module.exports = {
    up: async (queryInterface, Sequelize) => {
        await queryInterface.createTable('AllCodes', {
            id: { //k can khai bao trong user
                allowNull: false,
                autoIncrement: true,
                primaryKey: true,
                type: Sequelize.INTEGER
            },
            key: {
                type: Sequelize.STRING
            },
            type: {
                type: Sequelize.STRING
            },
            valueEn: {
                type: Sequelize.STRING
            },
            valueVi: {
                type: Sequelize.STRING
            },
            createdAt: {
                allowNull: false,
                type: Sequelize.DATE
            },
            updatedAt: {
                allowNull: false,
                type: Sequelize.DATE
            }
        });
    },
    down: async (queryInterface, Sequelize) => {
        await queryInterface.dropTable('AllCodes');
    }
};
```

migration-role.js

```
'use strict';
module.exports = {
   up: async (queryInterface, Sequelize) => {
      await queryInterface.createTable('Roles', {
         id: {
            allowNull: false,
            autoIncrement: true,
            primaryKey: true,
            type: Sequelize.INTEGER
         },
         name: { type: Sequelize.STRING, allowNull: false },
         description: Sequelize.STRING,
         createdAt: Sequelize.DATE,
         updatedAt: Sequelize.DATE,
      });
   },
   down: async (queryInterface, Sequelize) => {
      await queryInterface.dropTable('Roles');
   }
};
```

migration-user.js

```
'use strict';
/** @type {import('sequelize-cli').Migration} */
module.exports = {
   async up(queryInterface, Sequelize) {
      await queryInterface.createTable('Users', {
         id: {
            allowNull: false,
            autoIncrement: true,
            primaryKey: true,
            type: Sequelize.INTEGER
         },
         userName: {
            type: Sequelize.STRING
         },
         password: {
            type: Sequelize.STRING
         },
         email: {
            type: Sequelize.STRING
         },
         phoneNumber: {
            type: Sequelize.STRING
         },
         fullName: {
            type: Sequelize.STRING
         },
         gender: {
            type: Sequelize.STRING
         },
         roleId: {
            type: Sequelize.INTEGER,
            references: {
               model: 'Roles',
               key: 'id'
            }
         },
         slug: {
            type: Sequelize.STRING
         },
         createdAt: {
            allowNull: false,
            type: Sequelize.DATE
         },
         updatedAt: {
            allowNull: false,
            type: Sequelize.DATE
         }
      });
   },
   async down(queryInterface, Sequelize) {
      await queryInterface.dropTable('Users');
   }
};
```

/src/models/

allcode.js

```
'use strict';
const {
    Model
} = require('sequelize');
module.exports = (sequelize, DataTypes) => {
    class Allcode extends Model {
        /**
         * Helper method for defining associations.
         * This method is not a part of Sequelize lifecycle.
         * The `models/index` file will call this method automatically.
         */
        static associate(models) { // cac moi quan he o day (nhieu - nhieu, nhieu - it,...)
            // define association here
        }
    };
    Allcode.init({
        key: DataTypes.STRING,
        type: DataTypes.STRING,
        valueEn: DataTypes.STRING,
        valueVi: DataTypes.STRING
    }, {
        sequelize,
        modelName: 'Allcode',
    });
    return Allcode;
};
```

index.js

```
'use strict';
require('dotenv').config();
const fs = require('fs');
const path = require('path');
const Sequelize = require('sequelize');
const process = require('process');
const basename = path.basename(__filename);
const env = process.env.NODE_ENV || 'development';
const config = require(__dirname + '/../config/config.json')[env];
const db = {};

let sequelize;
if (config.use_env_variable) {
  sequelize = new Sequelize(process.env[config.use_env_variable], config);
} else {
  sequelize = new Sequelize(config.database, config.username, config.password,
config);
}

fs
  .readdirSync(__dirname)
  .filter(file => {
    return (
      file.indexOf('.') !== 0 &&
      file !== basename &&
      file.slice(-3) === '.js' &&
      file.indexOf('.test.js') === -1
    );
  })
  .forEach(file => {
    const model = require(path.join(__dirname, file))(sequelize,
Sequelize.DataTypes);
    db[model.name] = model;
  });

Object.keys(db).forEach(modelName => {
  if (db[modelName].associate) {
    db[modelName].associate(db);
  }
});

db.sequelize = sequelize;
db.Sequelize = Sequelize;

module.exports = db;

```

role.js

```
'use strict';
const {
   Model
} = require('sequelize');
module.exports = (sequelize, DataTypes) => {
   class Role extends Model {
      /**
       * Helper method for defining associations.
       * This method is not a part of Sequelize lifecycle.
       * The `models/index` file will call this method automatically.
       */
      static associate(models) { // cac moi quan he o day (nhieu - nhieu, nhieu - it,...)
         Role.hasMany(models.User, { foreignKey: 'roleId' });
      }
   };
   Role.init({
      name: DataTypes.STRING,
      description: DataTypes.STRING,
   }, {
      sequelize,
      modelName: 'Role',
   });
   return Role;
};
```

user.js

```
'use strict';
const {
  Model
} = require('sequelize');
module.exports = (sequelize, DataTypes) => {
  class User extends Model {
    /**
     * Helper method for defining associations.
     * This method is not a part of Sequelize lifecycle.
     * The `models/index` file will call this method automatically.
     */
    static associate(models) {
      User.belongsTo(models.Role, { foreignKey: 'roleId', targetKey: 'id' });
    }
  }
  User.init({
    userName: DataTypes.STRING,
    password: DataTypes.STRING,
    email: DataTypes.STRING,
    phoneNumber: DataTypes.STRING,
    fullName: DataTypes.STRING,
    gender: DataTypes.STRING,
    roleId: DataTypes.INTEGER,
    slug: DataTypes.STRING
  }, {
    sequelize,
    modelName: 'User',
  });
  return User;
};
```

/src/public/image/

/src/routes/

apiRoutes.js

```
import express from 'express';
import authController from '../controllers/authController.js';
import userController from '../controllers/userController.js';
import adminController from '../controllers/adminController.js';
import { verifyToken, isRole } from '../middlewares/authMiddleware.js';
import validateBodyFields from '../middlewares/validateBodyFields.js';

const router = express.Router();

//public APIs
router.post(
   '/login',
   validateBodyFields(['identifier', 'password']),
   authController.handleLogin
);
router.post('/register', authController.handleRegister);

// Admin APIs
router.get('/admin/users-manager/:id', verifyToken, isRole(1),
adminController.handleGetAllUsers);
router.put('/admin/user/:id', verifyToken, isRole(1),
adminController.handleEditUser);
router.delete('/admin/user/:id', verifyToken, isRole(1),
adminController.handleDeleteUser);

// // User APIs
router
   .route('/profile/me')
   .get(verifyToken, isRole(2), userController.handleGetUserProfile)
   .put(verifyToken, isRole(2), userController.handleEditUserProfile);

router.patch('/user/me/address', verifyToken, isRole(2),
userController.updateAddress);
router.patch('/user/me/email', verifyToken, isRole(2), userController.updateEmail);
router.patch('/user/me/phone', verifyToken, isRole(2),
userController.updatePhoneNumber);
router.patch('/user/me/password', verifyToken, isRole(2),
userController.changePassword);

export default router;

```

web.js

```
import webRoutes from './webRoutes.js';
import apiRoutes from './apiRoutes.js';

```

```
const initRoutes = (app) => {
   app.use('/', webRoutes);              // View-based routing
   app.use('/api', apiRoutes);           // All API under /api/*
};

export default initRoutes;

```

webRoutes.js

```
import express from 'express';
import backendController from '../controllers/backendController.js';

const router = express.Router();

router.get('/', backendController.homePage);
router.get('/user-manager', backendController.userManager);
router.get('/create-new-user', backendController.createNewUser);
router.post('/post-create-new-user', backendController.postCreateNewUser);
router.get('/edit-user', backendController.editUser);
router.post('/update-user', backendController.updateUser);
router.get('/delete-user', backendController.deleteUser);

export default router;
```

/src/services/

adminService.js

```
import db from "../models/index"
import validator from "validator";
// User Manager

let getAllUsers = (userId) => {
   return new Promise(async (resolve, reject) => {
      try {
         let users = '';
         if (userId === 'ALL') {
            users = await db.User.findAll({
               attributes: { exclude: ['password'] },
               include: [{ model: db.Role, attributes: ['name'] }]
            })

         }
         if (userId && userId !== 'ALL') {
            users = await db.User.findOne({
               where: { id: userId },
               attributes: {
                  exclude: ['password'] // remove password
               }
            })
         }
         resolve(users)
      } catch (e) {
         reject(e);
      }
```

```
    })
}

let deleteUser = (userId) => {
    return new Promise(async (resolve, reject) => {
        try {
            let user = await db.User.findOne({
                where: { id: userId }
            });
            if (!user) {
                return resolve({
                    errCode: 2,
                    errMessage: `The user isn't exist`
                });
            }
            await user.destroy();
            resolve({
                errCode: 0,
                errMessage: `The user is deleted`
            });
        } catch (error) {
            reject({
                errCode: -1,
                errMessage: "An error occurred while deleting the user"
            });
        }
    });
}

const updateUserData = (data) => {
    return new Promise(async (resolve, reject) => {
        try {
            if (!data.id) {
                return resolve({
                    errCode: 1,
                    errMessage: 'Missing user ID'
                });
            }

            const user = await db.User.findOne({
                where: { id: data.id },
                raw: false
            });

            if (!user) {
                return resolve({
                    errCode: 3,
                    errMessage: 'User not found'
                });
            }

            // Kiểm tra email
            if (data.email && data.email !== user.email) {
                if (!validator.isEmail(data.email)) {
                    return resolve({
                        errCode: 5,
                        errMessage: 'Invalid email format'
                    });
                }

    const emailExists = await db.User.findOne({
       where: {
          email: data.email,
          id: { [db.Sequelize.Op.ne]: data.id }
       }
    });

    if (emailExists) {
       return resolve({
          errCode: 4,
          errMessage: 'Email already in use by another user'
       });
            }

            user.email = data.email;
         }

         // Các trường tùy chọn
         user.firstName = data.firstName?.trim() || null;
         user.lastName = data.lastName?.trim() || null;
         user.address = data.address?.trim() || null;
         user.phoneNumber = data.phoneNumber?.trim() || null;

         if (['M', 'F', 'O'].includes(data.gender)) {
            user.gender = data.gender;
         } else {
            user.gender = null;
         }

         // Vai trò người dùng (chỉ admin nên được cập nhật)
         if (data.roleId && typeof data.roleId === "number") {
            user.roleId = data.roleId;
         }

         await user.save();

         return resolve({
            errCode: 0,
            errMessage: 'Update user successfully'
         });

      } catch (error) {
         console.error("Update User Error:", error.message || error);
         return reject({
            errCode: -1,
            errMessage: 'Server error while updating user'
         });
      }
   });
};

export default {
   getAllUsers,
   deleteUser,
   updateUserData,
};
```

authService.js

```
import { resolveInclude } from "ejs";
import db from "../models/index"
import bcrypt from 'bcryptjs';
import { where } from "sequelize";
import { checkEmailExists, checkPhoneNumberExists, checkUserNameExists } from
"./validators";
import { Op } from 'sequelize';

const loginUser = async (identifier, password) => {
   try {
      const userData = {};

      const user = await db.User.findOne({
         where: {
            [Op.or]: [
               { userName: identifier },
               { email: identifier }
            ]
         },
         attributes: ['id', 'userName', 'email', 'roleId', 'password'],
         include: [
            {
               model: db.Role,
               attributes: ['name']
            }
         ]
      });

      if (!user) {
         return {
            errCode: 1,
            errMessage: "Wrong account or password!"
         };
      }

      if (!password || !user.password) {
         return {
            errCode: 2,
            errMessage: "Missing password!"
         };
      }

      const match = bcrypt.compareSync(password, user.password);

      if (!match) {
         return {
            errCode: 3,
            errMessage: "Wrong password!"
         };
      }

      const userPlain = user.get({ plain: true });
      delete userPlain.password;
      delete userPlain.Role;

      return {
         errCode: 0,
         errMessage: "OK",
         user: userPlain
      };

   } catch (err) {
      console.error("Login error:", err);
      return {
         errCode: -1,
         errMessage: "Internal server error"
      };
   }
};

let registerUser = (data) => {
   return new Promise(async (resolve, reject) => {
      try {
         // validate roleId tồn tại thật sự
         const validRole = await db.Role.findOne({ where: { id: parseInt(data.roleId) } });
         if (!validRole) {
            return resolve({ errCode: 5, errMessage: 'Invalid roleId' });
         }
         if (!validator.isEmail(data.email)) {
            return resolve({ errCode: 6, errMessage: 'Invalid email format' });
         }

         const errors = [];

         if (await checkEmailExists(data.email)) errors.push("Email already exists");
         if (await checkUserNameExists(data.userName)) errors.push("Username already exists");
         if (await checkPhoneNumberExists(data.phoneNumber)) errors.push("Phone number already exists");

         if (errors.length > 0) {
            return resolve({
               errCode: 1,
               errMessage: errors.join(", "),
            });
         }

         // Nếu không trùng thì tạo user
         let hashPassword = await hashUserPassword(data.password);
         await db.User.create({
            userName: data.userName,
            email: data.email,
            phoneNumber: data.phoneNumber,
            password: hashPassword,
            firstName: data.firstName,
            lastName: data.lastName,
            address: data.address,
            gender: data.gender || null,
            roleId: parseInt(data.roleId) || 2
         });

         resolve({
            errCode: 0,
            message: 'User created successfully!'
         });
      } catch (error) {
```

```
                reject(error);
            }
        });
    };

    const hashUserPassword = async (password) => {
        try {
            const salt = await bcrypt.genSalt(10);
            const hashed = await bcrypt.hash(password, salt);
            return hashed;
        } catch (e) {
            throw e;
        }
    };

    export default {
        loginUser,
        registerUser,
    }
```

backendService.js

```
import bcrypt from 'bcrypt';
import db from '../models/index';
import { where } from 'sequelize';

const salt = bcrypt.genSaltSync(10);

let getAllUser = async () => {
    try {
        let users = await db.User.findAll({
            attributes: { exclude: ['password'] },
            include: [
                {
                    model: db.Role,
                    attributes: ['name']
                }
            ],
            raw: true,
            nest: true
        });
        return users;
    } catch (error) {
        throw error;
    }
};

let createNewUser = async (data) => {
    try {

        data.userName = data.userName?.trim();
        data.email = data.email?.trim();
        data.phoneNumber = data.phoneNumber?.trim();
        data.fullName = data.fullName?.trim();

        if (!data.userName || !data.password || !data.roleId) {
            return {
                errCode: 1,
                errMessage: 'Missing required fields'
            };
        }

        const loginExists = await db.User.findOne({ where: { userName: data.userName } });
        if (loginExists) return { errCode: 2, errMessage: 'Username already exists' };

        if (data.phoneNumber) {
            const phoneExists = await db.User.findOne({ where: { phoneNumber: data.phoneNumber } });
            if (phoneExists) return { errCode: 3, errMessage: 'Phone number already exists' };
        }

        if (data.email) {
            const emailRegex = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;
            if (!emailRegex.test(data.email)) {
                return { errCode: 6, errMessage: 'Invalid email format' };
            }
        }

        const emailExists = data.email ? await db.User.findOne({ where: { email: data.email } }) : null;
        if (emailExists) return { errCode: 4, errMessage: 'Email already exists' };

        const hashedPassword = await bcrypt.hash(data.password, salt);

        await db.User.create({
            userName: data.userName,
            password: hashedPassword,
            email: data.email || null,
            phoneNumber: data.phoneNumber || null,
            fullName: data.fullName || null,
            gender: data.gender || null,
            roleId: parseInt(data.roleId),
        });
        return { errCode: 0, errMessage: 'Create new user succeed' };
    } catch (error) {
        throw error;
    }
};

let getUserInfoById = async (userId) => {
    return new Promise(async (resolve, reject) => {
        try {
            let user = await db.User.findOne({
                where: { id: userId },
                raw: true
            })
            if (user) {
                resolve(user)
            } else {
                resolve({});
            }
        } catch (error) {
            reject(error);
        }
    })
```

```
}

let updateUserData = async (data) => {
   try {
      if (!data.id) return { errCode: 1, errMessage: 'Missing user ID' };

      const user = await db.User.findOne({ where: { id: data.id } });
      if (!user) return { errCode: 2, errMessage: 'User not found' };

      // Email
      if (data.email !== undefined) {
         const emailValue = data.email.trim();
         if (emailValue === "") {
            user.email = null;
         } else if (emailValue !== user.email) {
            const emailExists = await db.User.findOne({
               where: {
                  email: emailValue,
                  id: { [db.Sequelize.Op.ne]: data.id }
               }
            });
            if (emailExists) return { errCode: 3, errMessage: 'Email already in use' };
            user.email = emailValue;
         }
      }

      // Phone number
      if (data.phoneNumber !== undefined) {
         const phoneValue = data.phoneNumber.trim();
         if (phoneValue === "") {
            user.phoneNumber = null;
         } else {
            const phonePattern = /^0\d{9}$/;
            if (!phonePattern.test(phoneValue)) {
               return { errCode: 5, errMessage: 'Invalid phone number. Must be 10 digits and start with 0.' };
            }
            user.phoneNumber = phoneValue;
         }
      }

      // Full name
      user.fullName = data.fullName?.trim() || null;

      // Gender (cẩn thận vì 0 là falsy)
      if (data.gender !== undefined) {
         user.gender = data.gender;
      }

      // Role ID (nếu không muốn cho update, có thể bỏ)
      if (data.roleId !== undefined) {
         user.roleId = data.roleId;
      }

      await user.save();
      return { errCode: 0, errMessage: 'Update successful' };
   } catch (error) {
```

```
            throw error;
        }
    };

    let deleteUserById = async (userId) => {
        try {
            const user = await db.User.findOne({ where: { id: userId } });
            if (!user) return { errCode: 1, errMessage: 'User not found' };

            await user.destroy();
            return { errCode: 0, errMessage: 'User deleted successfully' };
        } catch (error) {
            throw error;
        }
    };

    module.exports = {
        getAllUser: getAllUser,
        createNewUser: createNewUser,
        getUserInfoById: getUserInfoById,
        updateUserData: updateUserData,
        deleteUserById: deleteUserById,
    };
```

userService.js

```
import db from '../models';

let getUserInfoById = async (userId) => {
    try {
        const user = await db.User.findOne({
            where: { id: userId },
            attributes: { exclude: ['password'] },
            include: [
                {
                    model: db.Role,
                    attributes: ['name']
                }
            ]
        });

        return user || null;
    } catch (error) {
        throw new Error('Database error when fetching user info');
    }
};

export default {
    getUserInfoById: getUserInfoById,
};
```

validators.js

```
import db from "../models/index"

export const checkEmailExists = async (userEmail) => {
    return new Promise(async (resolve, reject) => {
        try {
           let user = await db.User.findOne({
              where: { email: userEmail }
           });
           if (user) {
              resolve(true);
           } else {
              resolve(false);
           };
        } catch (e) {
           reject(e);
        }
     });
  };

  export const checkPhoneNumberExists = async (phoneNumber) => {
     try {
        let user = await db.User.findOne({
           where: { phoneNumber: phoneNumber }
        });
        return user ? true : false;
     } catch (error) {
        console.log("Error checking phoneNumber:", error);
        return false;
     }
  };

  export const checkUserNameExists = async (userName) => {
     try {
        let user = await db.User.findOne({
           where: { userName: userName }
        });
        return user ? true : false;
     } catch (error) {
        console.log("Error checking userName:", error);
        return false;
     }
  };
```

/src/utils/

sendResponse.js

```
const sendResponse = (res, {
   status = 200,
   errCode = 0,
   message = 'Success',
   data = null,
   token = null
}) => {
   const response = { errCode, message };
   if (data !== null) response.data = data;
   if (token) response.token = token;

   return res.status(status).json(response);
};

export default sendResponse;
```

/src/views/

createNewUser.ejs

```
<!DOCTYPE html>
<html lang="en">

<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css"
rel="stylesheet">
   <title>Create User</title>
   <style>
      body {
         background-color: #f8f9fa;
         font-family: Arial, sans-serif;
         padding: 30px 0;
      }

      .container {
         background-color: #ffffff;
         border-radius: 10px;
         box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
         padding: 40px;
         max-width: 600px;
         margin: auto;
      }

      h2 {
         text-align: center;
         color: #495057;
         margin-bottom: 30px;
      }

      .form-control,
      .form-select {
         border-radius: 10px;
         font-size: 16px;
         box-shadow: 0 1px 2px rgba(0, 0, 0, 0.1);
      }

      .btn-primary {
         background-color: #007bff;
         border: none;
         border-radius: 10px;
         padding: 10px 20px;
         font-size: 16px;
         width: 100%;
         margin-top: 20px;
         transition: background-color 0.3s ease;
      }

      .btn-primary:hover {
         background-color: #0056b3;
         cursor: pointer;
      }

      label {
         font-weight: bold;
         color: #495057;
      }

      .form-group input[type="file"] {
         padding: 0;
      }

      .btn-group {
         margin-bottom: 20px;
         display: flex;
         justify-content: space-between;
      }

      .btn-secondary {
         width: 48%;
      }
   </style>
</head>

<body>
   <div class="btn-group">
      <button onclick="location.href='/'" class="btn btn-secondary">Home</button>
      <button onclick="location.href='/user-manager'" class="btn btn-secondary">User Manager</button>
   </div>
   <div class="container">
      <h2>Create New User</h2>

      <% if (typeof errorMessage !=='undefined' && errorMessage) { %>
         <div class="alert alert-danger">
            <%= errorMessage %>
         </div>
         <% } %>

            <form action="/post-create-new-user" method="POST" onsubmit="return">
               <p><small style="color: red;">* Required</small></p>

               <div class="mb-3">
                  <label for="userName">Username <span style="color: red;">*</span></label>
                  <input type="text" class="form-control" name="userName" required
                     value="<%= oldInput?.userName || '' %>">
               </div>

               <div class="mb-3">
                  <label for="password">Password <span style="color: red;">*</span></label>
                          <input type="password" class="form-control" name="password" required>
                          <% if (passwordError) { %>
                             <div class="text-danger mt-1">
                                <%= passwordError %>
                             </div>
                             <% } %>
                       </div>

                       <div class="mb-3">
```

```
                           <label for="email">Email</label>
                           <input type="email" class="form-control" name="email" value="<%= oldInput?.email || '' %>">
                           <% if (emailError) { %>
                              <div class="text-danger mt-1">
                                 <%= emailError %>
                              </div>
                              <% } %>
                        </div>

                        <div class="mb-3">
                           <label for="phoneNumber">Phone number</label>
                           <input type="text" class="form-control" name="phoneNumber" pattern="^0\d{9}$"
                              value="<%= oldInput?.phoneNumber || '' %>">
                           <% if (phoneError) { %>
                              <div class="text-danger mt-1">
                                 <%= phoneError %>
                              </div>
                              <% } %>
                        </div>

                        <div class="mb-3">
                           <label for="fullName">Full name</label>
                           <input type="text" class="form-control" name="fullName" value="<%= oldInput?.fullName || '' %>">
                        </div>

                        <div class="mb-3">
                           <label for="gender">Gender</label>
                           <select class="form-select" name="gender">
                              <option value="" disabled <%=!oldInput?.gender ? 'selected' : '' %>>Choose</option>
                              <option value="M" <%=oldInput?.gender==='M' ? 'selected' : '' %>>Male</option>
                              <option value="F" <%=oldInput?.gender==='F' ? 'selected' : '' %>>Female</option>
                           </select>
                        </div>

                        <div class="mb-3">
                           <label for="roleId">Role <span style="color: red;">*</span></label>
                           <select class="form-select" name="roleId" id="roleId" required>
                              <option value="" disabled <%=!oldInput?.roleId ? 'selected' : '' %>>Choose</option>
                              <option value="1" <%=oldInput?.roleId==1 ? 'selected' : '' %>>Admin</option>
                              <option value="2" <%=oldInput?.roleId==2 ? 'selected' : '' %>>User</option>
                           </select>
                        </div>

                        <button type="submit" class="btn btn-primary">Create</button>
                     </form>

            </div>

```

```
        </body>

        </html>
```

homePage.ejs

```
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Trang quản trị - Backend</title>
    <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css"
rel="stylesheet">
</head>
<style>
    /* Reset mặc định */
    body,
    h1,
    h4,
    p {
        margin: 0;
        padding: 0;
        box-sizing: border-box;
    }

    /* Toàn trang */
    body {
        font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
        background-color: darkgray;
        padding: 40px 20px;
        color: #333;
    }

    /* Tiêu đề */
    h1.title {
        text-align: center;
        color: #2c3e50;
        margin-bottom: 10px;
        font-size: 4rem;
    }

    h6.description {
        text-align: center;
        color: #2c3e50;
        margin-bottom: 60px;
        font-size: 2rem;
    }

    /* Grid layout cho menu */
    .menu-grid {
        display: grid;
        grid-template-columns: repeat(auto-fit, minmax(250px, 1fr));
        gap: 20px;
        max-width: 1000px;
        margin: 0 auto;
```

```html
   }

   .menu-item {
      background-color: #fff;
      border-radius: 12px;
      padding: 24px;
      box-shadow: 0 4px 12px rgba(0, 0, 0, 0.06);
      transition: transform 0.2s ease, box-shadow 0.3s ease;
      cursor: pointer;
      border-left: 5px solid #0d6efd;
   }

   .menu-item:hover {
      transform: translateY(-5px);
      box-shadow: 0 8px 20px rgba(0, 0, 0, 0.12);
      border-left-color: #0a58ca;
   }

   .menu-item h4 {
      font-size: 1.2rem;
      margin-bottom: 8px;
      color: #0d6efd;
   }

   .menu-item p {
      font-size: 0.95rem;
      color: #555;
   }
</style>

<body>
   <h1 class="title">ADMIN</h1>
   <h6 class="description">Website Management</h6>

   <div class="menu-grid">

      <div class="menu-item" onclick="location.href='/user-manager'">
         <h4>User Manager</h4>
         <p>View, edit, delete user accounts</p>
      </div>

      <div class="menu-item" onclick="location.href='/create-new-user'">
         <h4>Create New User</h4>
         <p>Add new user with role</p>
      </div>

      <!-- ▼ Có thể thêm nhiều mục khác ở đây -->
      <div class="menu-item" onclick="alert('Function under construction...')">
         <h4>Product Manager</h4>
                 <p>View, create, edit, delete products</p>
              </div>

              <div class="menu-item" onclick="alert('Function under construction...')">
                 <h4>System statistics</h4>
                 <p>Report by role or time</p>
              </div>

           </div>
```

```
        </body>

        </html>
```

updateUser.ejs

```
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css"
rel="stylesheet">
    <title>Update User</title>
    <style>
        body {
            background-color: #f8f9fa;
            font-family: Arial, sans-serif;
            padding: 30px 0;
        }

        .container {
            background-color: #ffffff;
            border-radius: 10px;
            box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
            padding: 40px;
            max-width: 600px;
            margin: auto;
        }

        h2 {
            text-align: center;
            color: #495057;
            margin-bottom: 30px;
        }

        .form-control,
        .form-select {
            border-radius: 10px;
            font-size: 16px;
            box-shadow: 0 1px 2px rgba(0, 0, 0, 0.1);
        }

        .btn-primary {
            background-color: #007bff;
            border: none;
            border-radius: 10px;
            padding: 10px 20px;
            font-size: 16px;
            width: 100%;
            margin-top: 20px;
            transition: background-color 0.3s ease;
        }

        .btn-primary:hover {
            background-color: #0056b3;
```

```
         cursor: pointer;
      }

      label {
         font-weight: bold;
         color: #495057;
      }

      .form-group input[type="file"] {
         padding: 0;
      }

      .btn-group {
         margin-bottom: 20px;
         display: flex;
         justify-content: space-between;
      }

      .btn-secondary {
         width: 48%;
      }
   </style>
</head>

<body>
   <div class="btn-group">
      <button onclick="location.href='/'" class="btn btn-secondary">Home</button>
      <button onclick="location.href='/manager-user'" class="btn btn-secondary">User Manager</button>
   </div>
   <div class="container">
      <h2>Update User</h2>

      <% if (typeof error !=='undefined' && error) { %>
         <div class="alert alert-danger">
            <%= error %>
         </div>
         <% } %>

            <form action="/update-user" method="POST" onsubmit="return validateForm()">

               <input type="hidden" name="id" value="<%= user.id %>">

               <p><small style="color: red;">* Bắt buộc</small></p>

               <div class="mb-3">
                  <label for="userName" class="form-label">User Name</label>
                  <input type="text" class="form-control" name="userName" value="<%= user.userName %>" readonly>
               </div>

                      <div class="mb-3">
                         <label for="email" class="form-label">Email</label>
                         <input type="email" class="form-control" name="email" id="email" value="<%= user.email %>">
                         <% if (typeof emailError !=='undefined' && emailError) { %>
                            <div class="text-danger mt-1">
                               <%= emailError %>
```

```
                                    </div>
                                    <% } %>
                            </div>

                            <div class="mb-3">
                                <label for="phoneNumber" class="form-label">Phone number</label>
                                <input type="text" class="form-control" name="phoneNumber" id="phoneNumber"
                                    value="<%= user.phoneNumber %>">
                                <% if (typeof phoneError !=='undefined' && phoneError) { %>

                                    <div class="text-danger mt-1">
                                        <%= phoneError %>
                                    </div>
                                    <% } %>
                            </div>

                            <div class="mb-3">
                                <label for="fullName" class="form-label">Full name</label>
                                <input type="text" class="form-control" name="fullName" value="<%= user.fullName %>">
                            </div>

                            <div class="mb-3">
                                <label for="gender" class="form-label">Gender</label>
                                <select class="form-select" name="gender">
                                    <option value="1" <%=user.gender===true || user.gender==1 ? 'selected' : '' %>>Nam</option>
                                    <option value="0" <%=user.gender===false || user.gender==0 ? 'selected' : '' %>>Nữ</option>
                                </select>
                            </div>

                            <div class="mb-3">
                                <label for="roleId" class="form-label">Role</label>
                                <select class="form-select" name="roleId" disabled>
                                    <option value="1" <%=user.roleId==1 ? 'selected' : '' %>>Admin</option>
                                    <option value="0" <%=user.roleId==0 ? 'selected' : '' %>>User</option>
                                </select>
                                <input type="hidden" name="roleId" value="<%= user.roleId %>">
                            </div>

                            <button type="submit" class="btn btn-primary">Update</button>
                        </form>

            </div>
            <script>
                function validateForm() {
                    document.querySelectorAll('.text-danger').forEach(el => el.innerText = '');

                    const email = document.getElementById("email").value.trim();
                    const phone = document.getElementById("phoneNumber").value.trim();

                    let isValid = true;
```

```
                 const emailPattern = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;
                 if (email && !emailPattern.test(email)) {
                    const emailError = document.createElement('div');
                    emailError.className = 'text-danger mt-1';
                    emailError.innerText = "Email không hợp lệ.";
                    document.getElementById("email").parentNode.appendChild(emailError);
                    isValid = false;
                 }

                 const phonePattern = /^0\d{9}$/;
                 if (phone && !phonePattern.test(phone)) {
                    const phoneError = document.createElement('div');
                    phoneError.className = 'text-danger mt-1';
                    phoneError.innerText = "Số điện thoại phải gồm 10 số và bắt đầu bằng số 0.";
                    document.getElementById("phoneNumber").parentNode.appendChild(phoneError);
                    isValid = false;
                 }

                 return isValid;
              }
           </script>

        </body>

        </html>
```

userManager.ejs

```
<!DOCTYPE html>
<html lang="en">

<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css"
rel="stylesheet">
   <title>Manager User</title>
   <style>
      .table th,
      .table td {
         vertical-align: middle;
         padding: 10px 15px;
         text-align: center;
      }

      .table-hover tbody tr:hover {
         background-color: #f1f1f1;
         transition: background-color 0.3s ease;
      }

      .btn-outline-warning,
      .btn-outline-danger {
         font-weight: bold;
         padding: 10px 15px;
         border-radius: 5px;
         transition: all 0.3s ease;
      }

      .btn-outline-warning:hover {
         background-color: #ffc107;
         border-color: #ffc107;
         color: white;
      }

      .btn-outline-danger:hover {
         background-color: #dc3545;
         border-color: #dc3545;
         color: white;
      }

      .table-container {
         background-color: #f8f9fa;
         padding: 20px;
         border-radius: 10px;
         box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
         margin-top: 30px;
      }

      .table-sm th,
      .table-sm td {
         padding: 5px 10px;
      }
   </style>
</head>

<body>
   <div class="container table-container">
      <h2 class="my-4 text-center text-dark">Manager User</h2>
      <div class="d-flex justify-content-between mt-4">
         <button onclick="location.href='/'" class="btn btn-secondary">HomePage</button>
         <button onclick="location.href='/create-new-user'" class="btn btn-success">Tạo tài khoản</button>
      </div>
      <table class="table table-dark table-hover table-sm">
         <thead>
            <tr>
               <th>Username</th>
               <th>Email</th>
               <th>Phone</th>
               <th>Full name</th>
               <th>Gender</th>
               <th>Role</th>
               <th>Action</th>
            </tr>
         </thead>
         <tbody>
            <% for (let user of dataTable) { %>
               <tr>
                  <td>
                     <%= user.userName || 'Null' %>
                  </td>
```

```
          <td>
             <%= user.email || 'Null' %>
          </td>
          <td>
             <%= user.phoneNumber || 'Null' %>
          </td>
          <td>
             <%= user.fullName || 'Null' %>
          </td>
          <td>
             <% if (user.gender==='M' ) { %>Nam
                <% } else if (user.gender==='F' ) { %>Nữ
                   <% } else { %>Null<% } %>
          </td>
          <td>
             <%= user.Role?.name || 'Null' %>
          </td>
          <td>
                     <a href="/edit-user?id=<%= user.id %>" class="btn btn-outline-warning">Edit</a>
                     <a href="javascript:void(0)" onclick="confirmDelete(<%= user.id %>, '<%= user.loginName %>')"
                        class="btn btn-outline-danger">Delete</a>
                  </td>
               </tr>
               <% } %>
         </tbody>
      </table>
   </div>

   <script>
      function confirmDelete(userId, userName) {
         if (confirm("Bạn có chắc muốn xóa tài khoản '" + userName + "' không?")) {
            window.location.href = '/delete-user?id=' + userId;
         }
      }
   </script>
</body>

</html>
```

/src/.gitignore/

.gitignore

```
/node_modules
/vendor
/.idea
.idea/
.env
```

/src/server

server.js

```
import path from 'path';
import { config } from 'dotenv';
import express from "express";
import bodyParser from "body-parser";
import cors from "cors";
import viewEngine from "./config/viewEngine";
import initRoutes from './routes/web';
import connectDB from './config/connectDB';

// Load biến môi trường từ .env
config({ path: path.resolve(__dirname, '../.env') });

const app = express();

// ✅ Cấu hình CORS cho phép frontend truy cập backend
app.use(cors({
   origin: 'http://localhost:3000',
   methods: ['GET', 'POST', 'PUT', 'DELETE'],
   credentials: true
}));

// ✅ Bổ sung header để cho phép Authorization
app.use((req, res, next) => {
   res.header('Access-Control-Allow-Headers', 'Origin, X-Requested-With, Content-Type, Accept, Authorization');
   next();
});

// ✅ Parse body của request
app.use(bodyParser.json());
app.use(bodyParser.urlencoded({ extended: true }));

// ✅ Khởi tạo view engine nếu bạn đang dùng EJS cho các route test
viewEngine(app);

// ✅ Khai báo các route API/web
initRoutes(app);

// ✅ Kết nối cơ sở dữ liệu
connectDB();

// ✅ Chạy server trên cổng .env hoặc 8080 mặc định
const port = process.env.PORT || 5050;
app.listen(port, () => {
   console.log("Dự án NguyenLien đã chạy THÀNH CÔNG trên CỔNG " + port + " !!!");
});
```

/.babelrc

.babelrc

```
{
   "presets": [
      "@babel/preset-env"
   ]
}
```

/.env

.env

```
PORT=8080
NODE_ENV=development
JWT_SECRET=nguyenlien-secret-key
JWT_EXPIRES=1d
```

/pakage.json

package.json

```
{
  "name": "backend-nodejs-nguyenlienproject",
  "version": "1.0.0",
  "main": "server.js",
  "scripts": {
    "start": "nodemon --exec ./node_modules/.bin/babel-node src/server.js",
    "dev": "nodemon src/server.js",
    "test": "echo \"No test defined\"",
    "migrate": "sequelize-cli db:migrate",
    "seed": "sequelize-cli db:seed:all"
  },
  "author": "PhamAnhKhoi",
  "license": "ISC",
  "description": "manager",
  "dependencies": {
    "bcrypt": "^6.0.0",
    "bcryptjs": "^3.0.2",
    "body-parser": "^1.19.0",
    "cors": "^2.8.5",
    "dotenv": "^8.6.0",
    "ejs": "^3.1.5",
    "express": "^4.17.1",
    "jsonwebtoken": "^9.0.2",
    "mysql2": "^3.14.1",
    "sequelize": "^6.37.7",
    "slugify": "^1.6.6",
    "validator": "^13.15.0"
  },
  "devDependencies": {
    "@babel/core": "^7.12.10",
    "@babel/node": "^7.12.10",
    "@babel/preset-env": "^7.12.10",
    "nodemon": "^2.0.7",
    "sequelize-cli": "^6.6.3"
  }
}
```

Frontend – React / JS

public/

server/

src/

src/assets/

src/components/

src/components/footer/

Footer.js/

```
import React, { Component } from 'react';
import { connect } from 'react-redux';

import * as actions from "../../store/actions";
import Navigator from '../../components/Navigator';
import './Footer.scss';

class Footer extends Component {

   render() {
      const { processLogout } = this.props;

      return (
         <div className="footer-container">
            Hello, this is the footer section.
         </div>
      );
   }

}

const mapStateToProps = state => {
   return {
      isLoggedIn: state.admin.isLoggedIn
   };
};

const mapDispatchToProps = dispatch => {
   return {
      processLogout: () => dispatch(actions.processLogout()),
   };
};

export default connect(mapStateToProps, mapDispatchToProps)(Footer);
```

Footer.scss

src/components/formating/

FormattedDate.js/

```
import React, { Component } from 'react';
import moment from 'moment';

/** For valid format please see <a href="https://momentjs.com/docs/#/displaying/">Moment format
options</a> */
const dateFormat = 'DD/MM/YYYY';

class FormattedDate extends Component {

    render() {
        const { format, value, ...otherProps } = this.props;
        var dFormat = format ? format : dateFormat;
        const formattedValue = value ? moment.utc(value).format(dFormat) : null;
        return (
            <span {...otherProps}>{formattedValue}</span>
        );
    }
}

export default FormattedDate;
```

index.js

```
export { default as FormattedDate } from './FormattedDate';
```

src/components/feader/

Header.js

```
import React, { Component } from 'react';
import { connect } from 'react-redux';

import * as actions from "../../store/actions";
import Navigator from '../../components/Navigator';
import { adminMenu } from './menuApp';
import './Header.scss';

class Header extends Component {

    render() {
        const { processLogout } = this.props;

        return (
            <div className="header-container">
                {/* thanh navigator */}
                <div className="header-tabs-container">
                    <Navigator menus={adminMenu} />
                </div>

                {/* nút logout */}
                <div className="btn btn-logout" onClick={processLogout}>
                    <i className="fas fa-sign-out-alt"></i>
                </div>
            </div>
        );
    }

}

const mapStateToProps = state => {
    return {
        isLoggedIn: state.admin.isLoggedIn
    };
};

const mapDispatchToProps = dispatch => {
    return {
        processLogout: () => dispatch(actions.processLogout()),
    };
};

export default connect(mapStateToProps, mapDispatchToProps)(Header);
```

Header.scss

```
@import "../../styles/common.scss";

.header-container {
    z-index: 99;
    display: flex;
    justify-content: space-between;
    background-color: $colormain;
    color: $common-text-color;
    height: 40px;
    position: relative;
    .btn-logout {
        color: $common-text-color;
        line-height: 40px;
        height: 40px;
        padding: 0 10px;
        &:hover {
            background-color: darken($colormain, 5);
        }
        i {
            font-size: $base-size + 1px;
        }
    }
}
```

menuApp.js

```
export const adminMenu = [
    { //hệ thống
        name: 'menu.system.header', menus: [
            {
                name: 'menu.system.system-administrator.header',
                subMenus: [
                    { name: 'menu.system.system-administrator.user-manage', link: '/system/user-
manage' },
                    { name: 'menu.system.system-administrator.product-manage', link:
'/system/product-manage' },
                    { name: 'menu.system.system-administrator.register-package-group-or-account',
link: '/system/register-package-group-or-account' },
                ]
            },
            // { name: 'menu.system.system-parameter.header', link: '/system/system-parameter' },
        ]
    },
];
```

src/components/input/

DatePicker.js

```
import React, { Component } from 'react';
import Flatpickr from 'react-flatpickr';
import moment from 'moment';

import { KeyCodeUtils } from "../../utils";
import './DatePicker.scss';

// const CustomInput = ({ value, defaultValue, inputRef, onInputChange, onInputBlur, ...props }) =>
{
//     return <input {...props} className='custom-form-control custom-date-input'
defaultValue={defaultValue} ref={inputRef}
//         onChange={onInputChange}
//         onBlur={onInputBlur}
//     />;
// };

class DatePicker extends Component {

    flatpickrNode = null;

    nodeRef = element => {
        this.flatpickr = element && element.flatpickr;
        this.flatpickrNode = element && element.node;
        if (this.flatpickrNode) {
            this.flatpickrNode.addEventListener('blur', this.handleBlur);
            this.flatpickrNode.addEventListener('keydown', this.handlerKeyDown);
        }
    };

    handlerKeyDown = (event) => {
        const keyCode = event.which || event.keyCode;
        if (keyCode === KeyCodeUtils.ENTER) {
            event.preventDefault();
            const { onChange } = this.props;
            const value = event.target.value;

            // Take the blur event and process the string value
            const valueMoment = moment(value, 'DD/MM/YYYY');
            onChange([valueMoment.toDate(), valueMoment.toDate()]);
        }
    }

    componentWillUnmount() {
        if (this.flatpickrNode) {
            this.flatpickrNode.removeEventListener('blur', this.handleBlur);
            this.flatpickrNode.removeEventListener('keydown', this.handlerKeyDown);
        }
    }

    handleBlur = (event) => {
        const { onChange } = this.props;
        const value = event.target.value;

        // Take the blur event and process the string value
        event.preventDefault();
        const valueMoment = moment(value, 'DD/MM/YYYY');
        onChange([valueMoment.toDate(), valueMoment.toDate()]);
    };

    onOpen = () => {
        if (this.flatpickrNode) {
            this.flatpickrNode.blur();
        }
    }

    close() {
        this.flatpickr.close();
    }

    checkDateValue = (str, max) => {
        if (str.charAt(0) !== '0' || str === '00') {
            var num = parseInt(str);
            if (isNaN(num) || num <= 0 || num > max) num = 1;
            str = num > parseInt(max.toString().charAt(0)) && num.toString().length === 1 ? '0' +
num : num.toString();
        };
        return str;
    }

    // autoFormatonBlur = (value) => {
    //     var input = value;
    //     var values = input.split('/').map(function (v, i) {
    //         return v.replace(/\D/g, '')
    //     });
    //     var output = '';
    //     if (values.length == 3) {
    //         var year = values[2].length !== 4 ? parseInt(values[2]) + 2000 : parseInt(values[2]);
    //         var month = parseInt(values[0]) - 1;
    //         var day = parseInt(values[1]);
    //         var d = new Date(year, month, day);
    //         if (!isNaN(d)) {
    //             //document.getElementById('result').innerText = d.toString();
    //             var dates = [d.getMonth() + 1, d.getDate(), d.getFullYear()];
    //             output = dates.map(function (v) {
    //                 v = v.toString();
    //                 return v.length == 1 ? '0' + v : v;
    //             }).join(' / ');
    //         };
    //     };
    //     // this.value = output;
    //     return output;
    // }

    autoFormatOnChange = (value, seperator) => {
        var input = value;

        let regexForDeleting = new RegExp(`\\D\\${seperator}$`);

        //if (/\D\/$/.test(input)) input = input.substr(0, input.length - 3); // dat.nt: Xóa thêm 1
ký tự nếu xóa dấu cách sau / (VD: 12 / 12 /=> 12 / 1)

        if (regexForDeleting.test(input)) input = input.substr(0, input.length - 3);

        var values = input.split(seperator).map(function (v) {
            return v.replace(/\D/g, '')
        });

        if (values[0]) values[0] = this.checkDateValue(values[0], 31);
        if (values[1]) values[1] = this.checkDateValue(values[1], 12);
        var output = values.map(function (v, i) {
            return v.length === 2 && i < 2 ? v + ' ' + seperator + ' ' : v;
        });
        return output.join('').substr(0, 14);
    }

    onInputChange = (e) => {
        if (this.DISPLAY_FORMAT === this.DATE_FORMAT_AUTO_FILL) {
            let converted = this.autoFormatOnChange(e.target.value, this.SEPERATOR);
            e.target.value = converted;
        }
    }

    onInputBlur = (e) => {
    }

    //dat.nt : Auto Fill cho dạng ngăn cách và format cụ thể (seperator có thể dc thay thế)
    SEPERATOR = "/";
    DATE_FORMAT_AUTO_FILL = "d/m/Y"; // Format không thay đổi

    // dat.nt : Format ngày hiển thị
    DISPLAY_FORMAT = "d/m/Y";

    render() {
        const { value, onChange, minDate, onClose, ...otherProps } = this.props;
        const options = {
            dateFormat: this.DISPLAY_FORMAT,
            allowInput: true,
            disableMobile: true,
            onClose: onClose,
            onOpen: this.onOpen
        };
        if (minDate) {
            options.minDate = minDate;
        }
        return (
            <Flatpickr
                ref={this.nodeRef}
                value={value}
                onChange={onChange}
                options={options}
                // render={
                //     ({ defaultValue, value, ...props }, ref) => {
                //         return <CustomInput defaultValue={defaultValue} inputRef={ref}
onInputChange={this.onInputChange} onInputBlur={this.onInputBlur} />
                //     }
                // }
                {...otherProps}
            />
        );
    }
}

export default DatePicker;
```

DatePicker.scss

```
@import "../../styles/common";

$bezier: cubic-bezier(0.23, 1, 0.32, 1);
$slideTime: 400ms;

$daySize: 39px;
$padding: $daySize / 16;
$dayMargin: 2px;
$daysWidth: $daySize * 7 + $dayMargin * 14 + $padding * 2 + 2;
$calendarWidth: $daysWidth;

$monthNavHeight: 28px !default;
$weekdaysHeight: 28px !default;
$timeHeight: 40px;

$disabledBorderColor: transparent;

$selectedDayForeground: #fff;
$selectedDayBackground: $colormain;

input {
  &.custom-date-input {
    word-spacing:-3px
  }
}
```

```
@-webkit-keyframes fpFadeInDown {
  from {
    opacity: 0;
    transform: translate3d(0, -20px, 0);
  }

  to {
    opacity: 1;
    transform: translate3d(0, 0, 0);
  }
}

@-moz-keyframes fpFadeInDown {
  from {
    opacity: 0;
    transform: translate3d(0, -20px, 0);
  }

  to {
    opacity: 1;
    transform: translate3d(0, 0, 0);
  }
}

@-ms-keyframes fpFadeInDown {
  from {
    opacity: 0;
    transform: translate3d(0, -20px, 0);
  }

  to {
    opacity: 1;
    transform: translate3d(0, 0, 0);
  }
}

@-o-keyframes fpFadeInDown {
  from {
    opacity: 0;
    transform: translate3d(0, -20px, 0);
  }

  to {
    opacity: 1;
    transform: translate3d(0, 0, 0);
  }
}

@keyframes fpFadeInDown {
  from {
    opacity: 0;
    transform: translate3d(0, -20px, 0);
  }

  to {
    opacity: 1;
    transform: translate3d(0, 0, 0);
  }
```

```
}

.flatpickr-calendar {
  background: transparent;
  opacity: 0;
  display: none;
  text-align: center;
  visibility: hidden;
  padding: 0;
  animation: none;
  direction: ltr;
  border: 0;
  font-size: 14px;
  line-height: 24px;
  border-radius: 5px;
  position: absolute;
  width: $calendarWidth;
  box-sizing: border-box;
  touch-action: manipulation;

  &.open, &.inline {
    opacity: 1;
    max-height: 640px;
    visibility: visible;
  }

  &.open {
    display: inline-block;
    z-index: 99999;
  }

  &.animate.open {
    animation: fpFadeInDown 300ms $bezier;
  }

  &.inline {
    display: block;
    position: relative;
    top: 2px;
  }

  &.static {
    position: absolute;
    top: calc(100% + 2px);

    &.open {
      z-index: 999;
      display: block;
    }
  }

  &.multiMonth {
    .flatpickr-days .dayContainer:nth-child(n+1) {
      & .flatpickr-day.inRange:nth-child(7n+7) {
        box-shadow: none !important;
      }
    }

    .flatpickr-days .dayContainer:nth-child(n+2) {
      & .flatpickr-day.inRange:nth-child(7n+1) {
        box-shadow: -2px 0 0 #e6e6e6, 5px 0 0 #e6e6e6;
      }
    }
  }

  .hasWeeks, .hasTime {
    .dayContainer {
      border-bottom: 0;
      border-bottom-right-radius: 0;
      border-bottom-left-radius: 0;
    }
  }

  &.showTimeInput.hasTime {
    .flatpickr-time {
      height: $timeHeight;
    }
  }

  &.noCalendar.hasTime {
    .flatpickr-time {
      height: auto;
    }
  }

  &:before, &:after {
    position: absolute;
    display: block;
    pointer-events: none;
    border: solid transparent;
    content: '';
    height: 0;
    width: 0;
    left: 22px;
  }

  &.rightMost {
    &:before, &:after {
      left: auto;
      right: 22px;
    }
  }

  &:before {
    border-width: 5px;
    margin: 0 -5px;
  }

  &:after {
    border-width: 4px;
    margin: 0 -4px;
  }

  &.arrowTop {
    &:before, &:after {
      bottom: 100%;
    }
  }
```

```
&.arrowBottom {
  &:before, &:after {
    top: 100%;
  }
}

&:focus {
  outline: 0;
}

.flatpickr-months {
  display: flex;

  .flatpickr-month {
    height: $monthNavHeight;
    line-height: 1;
    text-align: center;
    position: relative;
    user-select: none;
    overflow: hidden;
    flex: 1;
  }

  .flatpickr-prev-month, .flatpickr-next-month {
    text-decoration: none;
    cursor: pointer;
    position: absolute;
    top: 0;
    line-height: 16px;
    height: $monthNavHeight;
    padding: 10px;
    z-index: 3;

    &.disabled {
      display: none;
    }

    i {
      position: relative;
    }

    &.flatpickr-prev-month {
      left: 0;
    }


    &.flatpickr-next-month {
      right: 0;
    }

    svg {
      width: 14px;
      height: 14px;

      path {
        transition: fill 0.1s;
      }
    }
    }
  }

  background: $date-picker-bg;
  box-shadow: 1px 0 0 $date-picker-border, -1px 0 0 $date-picker-border, 0 1px 0 $date-picker-
border, 0 -1px 0 $date-picker-border, 0 3px 13px rgba(black, 0.08);

  &.arrowTop {
    &:before {
      border-bottom-color: $date-picker-border;
    }
    &:after {
      border-bottom-color: $date-picker-bg;
    }
  }

  &.arrowBottom {
    &:before {
      border-top-color: $date-picker-border;
    }
    &:after {
      border-top-color: $date-picker-bg;
    }
  }

  &.showTimeInput.hasTime {
    .flatpickr-time {
      border-top: 1px solid $date-picker-border;
    }
  }

  .flatpickr-months {
    .flatpickr-month {
      background: $date-picker-month-bg;
      color: $date-picker-month-fg;
      fill: $date-picker-month-fg;
    }

    .flatpickr-prev-month, .flatpickr-next-month {
      color: $date-picker-month-fg;
      fill: $date-picker-month-fg;

      &:hover {
        color: $date-picker-today-bg;
        svg {
          fill: $date-picker-arrow-hover;
        }
      }
    }
  }
}

.flatpickr-wrapper {
  position: relative;
  display: inline-block;
}

.numInputWrapper {
  position: relative;
```

```
height: auto;

input, span {
  display: inline-block;
}

input {
  width: 100%;
  &::-ms-clear {
    display: none;
  }

  &::-webkit-outer-spin-button, &::-webkit-inner-spin-button {
    margin: 0;
    -webkit-appearance: none;
  }
}

span {
  position: absolute;
  right: 0;
  width: 14px;
  padding: 0 4px 0 2px;
  height: 50%;
  line-height: 50%;
  opacity: 0;
  cursor: pointer;
  box-sizing: border-box;

  &:after {
    display: block;
    content: "";
    position: absolute;
  }

  &.arrowUp {
    top: 0;
    border-bottom: 0;

    &:after {
      top: 26%;
    }
  }

  &.arrowDown {
    top: 50%;

    &:after {
      top: 40%;
    }
  }

  svg {
    width: inherit;
    height: auto;
  }
}

&:hover {
    span {
      opacity: 1;
    }
  }

    span {
      border: 1px solid rgba($date-picker-day-fg, 0.15);

      &:hover {
        background: rgba(invert($date-picker-bg), 0.1);
      }

      &:active {
        background: rgba(invert($date-picker-bg), 0.2);
      }

      &.arrowUp {
        &:after {
          border-left: 4px solid transparent;
          border-right: 4px solid transparent;
          border-bottom: 4px solid rgba($date-picker-day-fg, 0.6);
        }
      }

      &.arrowDown {
        &:after {
          border-left: 4px solid transparent;
          border-right: 4px solid transparent;
          border-top: 4px solid rgba($date-picker-day-fg, 0.6);
        }
      }

      svg {
        path {
          fill: rgba($date-picker-month-fg, 0.5);
        }
      }
    }

    &:hover {
      background: rgba(invert($date-picker-bg), 0.05);
    }
}

.flatpickr-current-month {
  font-size: 135%;
  font-weight: 300;
  color: inherit;
  position: absolute;
  width: 75%;
  left: 12.5%;
  padding: 0.22 * $monthNavHeight 0 0 0;
  line-height: 1;
  height: $monthNavHeight;
  display: inline-block;
  text-align: center;
  transform: translate3d(0px, 0px, 0px);

  span.cur-month {
```

```
  font-family: inherit;
  font-weight: 700;
  color: inherit;
  display: inline-block;
  margin-left: 0.5ch;
  padding: 0;
}

.numInputWrapper {
  width: 6ch;
  display: inline-block;
}

input.cur-year {
  background: transparent;
  box-sizing: border-box;
  color: inherit;
  cursor: text;
  padding: 0 0 0 0.5ch;
  margin: 0;
  display: inline-block;
  font-size: inherit;
  font-family: inherit;
  font-weight: 300;
  line-height: inherit;
  height: auto;
  border: 0;
  border-radius: 0;
  vertical-align: initial;
  -webkit-appearance: textfield;
  -moz-appearance: textfield;
  appearance: textfield;

  &:focus {
    outline: 0;
  }

  &[disabled], &[disabled]:hover {
    font-size: 100%;
    pointer-events: none;
  }
}

  span.cur-month {
    &:hover {
      background: rgba(invert($date-picker-bg), 0.05);
    }
  }

  .numInputWrapper {
    span.arrowUp:after {
      border-bottom-color: $date-picker-month-fg;
    }

    span.arrowDown:after {
      border-top-color: $date-picker-month-fg;
    }
  }
```

```
    input.cur-year {
      &[disabled], &[disabled]:hover {
        color: rgba($date-picker-month-fg, 0.5);
        background: transparent;
      }
    }
}

.flatpickr-monthDropdown-months {
  border: none;
  border-radius: 0;
  box-sizing: border-box;
  color: inherit;
  cursor: pointer;
  font-size: inherit;
  font-family: inherit;
  font-weight: 300;
  height: $monthNavHeight - 6px;
  line-height: inherit;
  margin: -1px 0 0 0;
  outline: none;
  padding: 0 0 0 0.5ch;
  position: relative;
  vertical-align: initial;
  -webkit-box-sizing: border-box;
  -webkit-appearance: none;
  -moz-appearance: none;
  appearance: none;
  width: auto;

  &:focus, &:active {
    outline: none;
  }

  .flatpickr-monthDropdown-month {
    outline: none;
    padding: 0;
  }

    background: $date-picker-month-bg;

    &:hover {
      background: rgba(invert($date-picker-bg), 0.05);
    }

    .flatpickr-monthDropdown-month {
      background-color: $date-picker-month-bg;
    }
}

.flatpickr-weekdays {
  text-align: center;
  overflow: hidden;
  width: 100%;
  display: flex;
  align-items: center;
  height: $weekdaysHeight;

  .flatpickr-weekdaycontainer {
    display: flex;
    flex: 1;
  }

  background: $date-picker-weekdays-bg;
}

span.flatpickr-weekday {
  cursor: default;
  font-size: 90%;
  line-height: 1;
  margin: 0;
  text-align: center;
  display: block;
  flex: 1;
  font-weight: bolder;

    background: $date-picker-month-bg;
    color: $date-picker-weekdays-fg;
}

.dayContainer, .flatpickr-weeks {
  padding: 1px 0 0 0;
}

.flatpickr-days {
  position: relative;
  overflow: hidden;
  display: flex;
  align-items: flex-start;
  width: $daysWidth;

  &:focus {
    outline: 0;
  }
}

.dayContainer {
  padding: 0;
  outline: 0;
  text-align: left;
  width: $daysWidth;
  min-width: $daysWidth;
  max-width: $daysWidth;
  box-sizing: border-box;
  display: inline-block;
  display: -ms-flexbox;
  display: flex;
  flex-wrap: wrap;
  -ms-flex-wrap: wrap;
  -ms-flex-pack: justify;
  justify-content: space-around;
  transform: translate3d(0px, 0px, 0px);
  opacity: 1;

    & + .dayContainer {
      box-shadow: -1px 0 0 $date-picker-border;
    }
}
```

```scss
.flatpickr-day {
  background: none;
  border: 1px solid transparent;
  border-radius: 150px;
  box-sizing: border-box;
  cursor: pointer;

  font-weight: 400;
  width: 14.2857143%;
  flex-basis: 14.2857143%;
  max-width: $daySize;
  height: $daySize;
  line-height: $daySize;
  margin: 0;

  display: inline-block;
  position: relative;
  justify-content: center;
  text-align: center;

  &, &.prevMonthDay, &.nextMonthDay {
    &.inRange, &.today.inRange, &:hover, &:focus {
      cursor: pointer;
      outline: 0;
    }
  }

  &.selected, &.startRange, &.endRange {
    &.startRange {
      border-radius: 50px 0 0 50px;
    }

    &.endRange {
      border-radius: 0 50px 50px 0;
    }

    &.startRange.endRange {
      border-radius: 50px;
    }
  }

  &.inRange {
    border-radius: 0;
  }

  &.flatpickr-disabled, &.flatpickr-disabled:hover,
  &.prevMonthDay, &.nextMonthDay,
  &.notAllowed, &.notAllowed.prevMonthDay, &.notAllowed.nextMonthDay {
    cursor: default;
  }

  &.flatpickr-disabled, &.flatpickr-disabled:hover {
    cursor: not-allowed;
  }

  &.week.selected {
    border-radius: 0;
  }
  &.hidden {
    visibility: hidden;
  }

    background: none;
    border: 1px solid transparent;
    color: $date-picker-day-fg;

    &, &.prevMonthDay, &.nextMonthDay {
      &.inRange, &.today.inRange, &:hover, &:focus {
        background: $date-picker-day-hover-bg;
        border-color: $date-picker-day-hover-bg;
      }
    }

    &.today {
      border-color: $date-picker-today-border;

      &:hover, &:focus {
        border-color: $date-picker-today-border;
        background: $date-picker-today-bg;
        color: $date-picker-today-fg;
      }
    }

    &.selected, &.startRange, &.endRange {
      &, &.inRange, &:focus, &:hover, &.prevMonthDay, &.nextMonthDay {
        background: $selectedDayBackground;
        box-shadow: none;
        color: $selectedDayForeground;
        border-color: $selectedDayBackground;
      }

      &.startRange + .endRange:not(:nth-child(7n+1)) {
        box-shadow: -5 * $dayMargin 0 0 $selectedDayBackground;
      }
    }

    &.inRange {
      border-radius: 0;
      box-shadow: -2.5 * $dayMargin 0 0 $date-picker-day-hover-bg, 2.5 * $dayMargin 0 0 $date-
picker-day-hover-bg;
    }

    &.flatpickr-disabled, &.flatpickr-disabled:hover,
    &.prevMonthDay, &.nextMonthDay,
    &.notAllowed, &.notAllowed.prevMonthDay, &.notAllowed.nextMonthDay {
      color: rgba($date-picker-day-fg, 0.3);
      background: transparent;
      border-color: $disabledBorderColor;
    }

    &.flatpickr-disabled, &.flatpickr-disabled:hover {
      color: rgba($date-picker-day-fg, 0.1);
    }
}

.rangeMode .flatpickr-day {
  margin-top: 1px;
}

.flatpickr-weekwrapper {
  float: left;

  .flatpickr-weeks {
    padding: 0 12px;
  }

  .flatpickr-weekday {
    float: none;
    width: 100%;
    line-height: $weekdaysHeight;
  }

  span.flatpickr-day {
    &, &:hover {
      display: block;
      width: 100%;
      max-width: none;
      cursor: default;
    }
  }

    .flatpickr-weeks {
      box-shadow: 1px 0 0 $date-picker-border;
    }

    span.flatpickr-day {
      &, &:hover {
        color: rgba($date-picker-day-fg, 0.3);
        background: transparent;
        border: none;
      }
    }
}

.flatpickr-innerContainer {
  display: flex;
  box-sizing: border-box;
  overflow: hidden;
}

.flatpickr-rContainer {
  display: inline-block;
  padding: 0;
  box-sizing: border-box;
}

.flatpickr-time {
  text-align: center;
  outline: 0;
  height: 0;
  line-height: $timeHeight;
  max-height: $timeHeight;
  box-sizing: border-box;
  overflow: hidden;
  display: flex;
```

```scss
&:after {
  content: "";
  display: table;
  clear: both;
}

.numInputWrapper {
  flex: 1;
  width: 40%;
  height: $timeHeight;
  float: left;
}

&.hasSeconds .numInputWrapper {
  width: 26%;
}

&.time24hr .numInputWrapper {
  width: 49%;
}

input {
  background: transparent;
  box-shadow: none;
  border: 0;
  border-radius: 0;
  text-align: center;
  margin: 0;
  padding: 0;
  height: inherit;
  line-height: inherit;
  font-size: 14px;
  position: relative;
  box-sizing: border-box;
  -webkit-appearance: textfield;
  -moz-appearance: textfield;
  appearance: textfield;

  &.flatpickr-hour {
    font-weight: bold;
  }

  &.flatpickr-minute, &.flatpickr-second {
    font-weight: 400;
  }

  &:focus {
    outline: 0;
    border: 0;
  }
}

.flatpickr-time-separator, .flatpickr-am-pm {
  height: inherit;
  float: left;
  line-height: inherit;
  font-weight: bold;
  width: 2%;
```

```
    user-select: none;
    align-self: center;
  }

  .flatpickr-am-pm {
    outline: 0;
    width: 18%;
    cursor: pointer;
    text-align: center;
    font-weight: 400;
  }

    .numInputWrapper {
      span.arrowUp:after {
        border-bottom-color: $date-picker-day-fg;
      }

      span.arrowDown:after {
        border-top-color: $date-picker-day-fg;
      }
    }

    input {
      color: $date-picker-day-fg;
    }

    .flatpickr-time-separator, .flatpickr-am-pm {
      color: $date-picker-day-fg;
    }

    input, .flatpickr-am-pm {
      &:hover, &:focus {
        background: lighten($date-picker-day-hover-bg, 3);
      }
    }
}

.flatpickr-input[readonly] {
  cursor: pointer;
}
```

Index.js

```
export { default as DatePicker } from './DatePicker';
export { default as InputSuggest } from './InputSuggest';
```

InputSuggest.js

```
import React from 'react';
import Autosuggest from 'react-autosuggest';
import { connect } from 'react-redux';
import _ from 'lodash';

import "./InputSuggest.scss";

const isAlphaNumericChar = keycode => {
    return (keycode >= 48 && keycode <= 57) || (keycode >= 65 && keycode <= 90);
```

```
};

class InputSuggestion extends React.Component {
    constructor() {
        super();

        this.state = {
            textInput: '',
            suggestions: []
        };
        document.addEventListener('keydown', this.freeTyping.bind(this), false);
    }

    freeTyping(e) {
        if (!isAlphaNumericChar(e.keyCode)) {
            return;
        }
        if (e.target.value === undefined) {
            this.inputSearch.focus();
        }
    }

    getSuggestions = textInput => {
        // if (!textInput || textInput.length === 0) return []; //chưa nhập -> chưa gợi ý
        const inputValue = textInput.trim().toLowerCase();

        if (!this.props.inputsWithIndex) {
            return [{ textInput: textInput }];
        };
        let inputsWithIndex = this.props.inputsWithIndex;
        let keyArr = Object.keys(inputsWithIndex).filter(
            textInput => {
                return textInput.toLowerCase().indexOf(inputValue) >= 0
            }
        );
        var suggestArr = keyArr.map(function (key) {
            return inputsWithIndex[key];
        });

        return suggestArr;
    };

    storeInputReference = autosuggest => {
        if (autosuggest !== null) {
            this.inputSearch = autosuggest.input;
        }
    };

    shouldRenderSuggestions = value => {
        return true;
    };

    getSuggestionValue = suggestion => {
        this.props.onSelected(suggestion);
        return suggestion.displayName;
    }

    renderSuggestion = suggestion => {
        return (
            <div className="suggest-item">
                {suggestion.displayName}
            </div>
        );
    };

    onSuggestionsFetchRequested = ({ value }) => {
        this.setState({
            suggestions: this.sortSuggestions(this.getSuggestions(value), value)
        });
    };

    sortSuggestions(suggestions, value) {
        var results =  _.sortBy(suggestions, (element) => {
            return element.displayName
        })
        return results;
    }

    onSuggestionsClearRequested = () => {
        this.setState({
            suggestions: []
        });
    };

    onSuggestionSelected = (event, selected) => {
        this.props.onSelected(selected.suggestion)
        this.setState({
            textInput: selected.suggestion && selected.suggestion.displayName
        });
    };

    handleChangeInput = (event, { newValue }) => {
        this.setState({
            textInput: newValue || ''
        });
    };

    reset() {
        this.setState({
            textInput: ''
        });
        this.onSuggestionsFetchRequested({ value: '' });
    }

    handleBlurInput() {
        // this.setState({
        //     textInput: ''
        // });
    }

    render() {
        const { textInput, suggestions } = this.state;
        const inputProps = {
            value: textInput,
            className: "custom-form-control",
            onChange: this.handleChangeInput,
            onClick: () => {
                this.reset();
            },
            onBlur: () => {
                this.handleBlurInput();
            }
        };
        return (
            <Autosuggest
                suggestions={suggestions}
                onSuggestionsFetchRequested={this.onSuggestionsFetchRequested}
                onSuggestionsClearRequested={this.onSuggestionsClearRequested}
                getSuggestionValue={this.getSuggestionValue}
                renderSuggestion={this.renderSuggestion}
                onSuggestionSelected={this.onSuggestionSelected}
                shouldRenderSuggestions={this.shouldRenderSuggestions}
                highlightFirstSuggestion={true}
                inputProps={inputProps}
                ref={this.storeInputReference}
            />
        );
    }
}

const mapStateToProps = state => {
    return {
    };
};

export default connect(mapStateToProps, null)(InputSuggestion);
```

InputSuggest.scss

```
@import "../../styles/common";

.react-autosuggest__suggestions-container {
    min-width: 90%;
    position: absolute;
    top: 50px;
    z-index: 4;
    max-height: 140px;
    overflow: auto;
    background: $footer-container;
    box-shadow: 2px 2px 4px 0 $box-shadow-color;
    -webkit-box-shadow: 2px 2px 4px 0 $box-shadow-color;
}

.react-autosuggest__suggestions-list {
    list-style-type: none;
    margin-bottom: 0;
    padding: 0px;
}

.react-autosuggest__suggestion {
    padding: 0 5px;
    height: 28px;
    line-height: 28px;
    border-bottom: 1px solid $border;
    &:hover {
        cursor: pointer;
        background-color: darken($footer-container, 5);
    }
}

.react-autosuggest__suggestion--highlighted {
    background-color: darken($footer-container, 5);
}
```

src/components/Breadcrumb.js

```
import React from 'react';
import { useLocation, Link } from 'react-router-dom';

const Breadcrumb = () => {
   const location = useLocation();
   const pathnames = location.pathname.split('/').filter(x => x);

   return (
      <nav className="breadcrumb">
         <Link to="/">Trang chủ</Link>
         {pathnames.map((name, index) => {
            const routeTo = `/${pathnames.slice(0, index + 1).join('/')}`;
            return <span key={index}> / <Link to={routeTo}>{name}</Link></span>;
         })}
      </nav>
   );
};

export default Breadcrumb;
```

src/components/ConfirmModal.js

```
import React, { Component } from 'react';
import { FormattedMessage } from 'react-intl';
import { connect } from 'react-redux';
import { Modal } from 'reactstrap';

import './ConfirmModal.scss';
import * as actions from "../store/actions";
import { KeyCodeUtils } from "../utils";

class ConfirmModal extends Component {

    constructor(props) {
        super(props);
        this.acceptBtnRef = React.createRef();
    }

    initialState = {
    };

    state = {
        ...this.initialState
    };

    componentDidMount() {
        document.addEventListener('keydown', this.handlerKeyDown);
    }

    componentWillUnmount() {
        document.removeEventListener('keydown', this.handlerKeyDown);
    }

    handlerKeyDown = (event) => {
        const keyCode = event.which || event.keyCode;
        if (keyCode === KeyCodeUtils.ENTER) {
            if (!this.acceptBtnRef.current || this.acceptBtnRef.current.disabled) return;
            this.acceptBtnRef.current.click();
        }
    }

    onAcceptBtnClick = () => {
        const { contentOfConfirmModal } = this.props;
        if (contentOfConfirmModal.handleFunc) {
            contentOfConfirmModal.handleFunc(contentOfConfirmModal.dataFunc);
        }
        this.onClose();
    }

    onClose = () => {
        this.props.setContentOfConfirmModal({
            isOpen: false,
            messageId: "",
            handleFunc: null,
            dataFunc: null
        });
    }

    render() {
        const { contentOfConfirmModal } = this.props;

        return (
            <Modal isOpen={contentOfConfirmModal.isOpen} className='confirm-modal' centered={true}>
                <div className="modal-header">
                    <div className="modal-title">
                        <FormattedMessage id={"common.confirm"} />
                    </div>
                    <div className="col-auto">
                        <button className="btn btn-close" onClick={this.onClose}>
                            <i className="fal fa-times" />
                        </button>
                    </div>
                </div>

                <div className="modal-body">
                    <div className="confirm-modal-content">
                        <div className="row">
                            <div className="col-12">
                                <FormattedMessage id={contentOfConfirmModal.messageId ?
contentOfConfirmModal.messageId : "common.confirm-this-task"} />
                            </div>

                            <hr />

                            <div className="col-12">
                                <div className="btn-container text-center">
```

```
                                    <button className="btn btn-add" onClick={this.onClose} >
                                        <FormattedMessage id="common.close" />
                                    </button>
                                    <button ref={this.acceptBtnRef} className="btn btn-add"
onClick={this.onAcceptBtnClick}>
                                        <FormattedMessage id={"common.accept"} />
                                    </button>
                                </div>
                            </div>
                        </div>
                    </div>
                </div>
            </Modal >
        );
    }

}

const mapStateToProps = state => {
    return {
        lang: state.app.language,
        contentOfConfirmModal: state.app.contentOfConfirmModal
    };
};

const mapDispatchToProps = dispatch => {
    return {
        setContentOfConfirmModal: (contentOfConfirmModal) =>
dispatch(actions.setContentOfConfirmModal(contentOfConfirmModal))
    };
};

export default connect(mapStateToProps, mapDispatchToProps)(ConfirmModal);
```

src/components/ConfirmModal.scss

```
@import "../styles/common";

.confirm-modal {
  &.modal-dialog {
    @media (min-width: 766px) {
      min-width: 650px;
    }
  }

  hr {
    border: none;
    border-bottom: 1px solid $border;;
    width: 100%;
    margin: 10px 15px 5px 15px;
  }

  .btn-container {
    margin-top: 10px;
    .btn {
      width: 100px;
      &:first-child {
        margin-right: 10px;
      }
    }
  }

  .custom-form-group {
    margin: 5px 0;

    .custom-form-control.readonly {
      min-height: 28px;
      height: auto;
    }
  }
}
```

src/components/CustomScrollbars.js

```
import React, { Component } from 'react';
import { Scrollbars } from 'react-custom-scrollbars-2';


import './CustomScrollbars.scss';

class CustomScrollbars extends Component {

    ref = React.createRef();

    getScrollLeft = () => {
        const scrollbars = this.ref.current;
        return scrollbars.getScrollLeft();
    }
    getScrollTop = () => {
        const scrollbars = this.ref.current;
        return scrollbars.getScrollTop();
    }

    scrollToBottom = () => {
        if (!this.ref || !this.ref.current) {
            return;
        }
        const scrollbars = this.ref.current;
        const targetScrollTop = scrollbars.getScrollHeight();
        this.scrollTo(targetScrollTop);
    };

    scrollTo = (targetTop) => {
        const { quickScroll } = this.props;
        if (!this.ref || !this.ref.current) {
            return;
        }
        const scrollbars = this.ref.current;
        const originalTop = scrollbars.getScrollTop();
        let iteration = 0;

        const scroll = () => {
            iteration++;
            if (iteration > 30) {
                return;
            }
            scrollbars.scrollTop(originalTop + (targetTop - originalTop) / 30 * iteration);

            if (quickScroll && quickScroll === true) {
                scroll();
            } else {
                setTimeout(() => {
                    scroll();
                }, 20);
            }
        };

        scroll();
    };

    renderTrackHorizontal = (props) => {
        return (
            <div {...props} className="track-horizontal" />
        );
    };

    renderTrackVertical = (props) => {
        return (
            <div {...props} className="track-vertical" />
        );
    };

    renderThumbHorizontal = (props) => {
        return (
            <div {...props} className="thumb-horizontal" />
        );
    };

    renderThumbVertical = (props) => {
        return (
            <div {...props} className="thumb-vertical" />
        );
    };

    renderNone = (props) => {
        return (
            <div />
        );
    };

    render() {
        const { className, disableVerticalScroll, disableHorizontalScroll, children, ...otherProps }
= this.props;
        return (
            <Scrollbars
                ref={this.ref}
                autoHide={true}
                autoHideTimeout={200}
                hideTracksWhenNotNeeded={true}
                className={className ? className + ' custom-scrollbar' : 'custom-scrollbar'}
                {...otherProps}
                renderTrackHorizontal={disableHorizontalScroll ? this.renderNone :
this.renderTrackHorizontal}
```

```
                renderTrackVertical={disableVerticalScroll ? this.renderNone :
this.renderTrackVertical}
                renderThumbHorizontal={disableHorizontalScroll ? this.renderNone :
this.renderThumbHorizontal}
                renderThumbVertical={disableVerticalScroll ? this.renderNone :
this.renderThumbVertical}
            >
                {children}
            </Scrollbars>
        );
    }
}

export default CustomScrollbars;
```

src/components/CustomScrollbars.scss

```
@import "../styles/common.scss";

.custom-scrollbar {
  .thumb-horizontal {
    background-color: rgba($bg-scrollbar, 0.4);
    box-shadow: inset 1px 1px 0 rgba($bg-scrollbar, 0.10), inset 0 -1px 0 rgba($bg-scrollbar, 0.07);

    &:hover {
      background-color: rgba($bg-scrollbar, 0.8);
      box-shadow: inset 1px 1px 1px rgba($bg-scrollbar, 0.50);
    }

    &:active {
      background-color: rgba($bg-scrollbar, 0.9);
      box-shadow: inset 1px 1px 3px rgba($bg-scrollbar, 0.6);
    }
  }

  .thumb-vertical {
    background-color: rgba($bg-scrollbar, 0.4);
    box-shadow: inset 1px 1px 0 rgba($bg-scrollbar, 0.10), inset 0 -1px 0 rgba($bg-scrollbar, 0.07);

    &:hover {
      background-color: rgba($bg-scrollbar, 0.8);
      box-shadow: inset 1px 1px 1px rgba($bg-scrollbar, 0.50);
    }

    &:active {
      background-color: rgba($bg-scrollbar, 0.9);
      box-shadow: inset 1px 1px 3px rgba($bg-scrollbar, 0.6);
    }
  }


  &:hover {

    > .track-horizontal, > .track-vertical {
      opacity: 1 !important;

      > .thumb-horizontal, > .thumb-vertical {
        opacity: 1;
      }
    }
  }

  .track-horizontal {
    right: 0;
    bottom: 0;
    left: 0;
    height: 5px !important;
    &:hover, &:active {
      height: 10px !important;
    }
  }

  .track-vertical {
    right: 0;
    bottom: 0;
    top: 0;
    width: 5px !important;
    &:hover, &:active {
      width: 10px !important;
    }
  }

  .thumb-horizontal {
    cursor: pointer;
    border-radius: 10px;
    background-clip: padding-box;
    min-width: 0px;

  }

  .thumb-vertical {
    cursor: pointer;
    border-radius: 10px;
    background-clip: padding-box;
    min-height: 0px;
  }

}
```

src/components/CustomToast.js

```
import React, { Component, Fragment } from 'react';
import { FormattedMessage, FormattedTime } from 'react-intl';

import CustomScrollBar from '../components/CustomScrollbars';

import './CustomToast.scss';

class CustomToast extends Component {

    render() {
        const { titleId, message, messageId, time } = this.props;
        return (
            <Fragment>
                <div className="custom-toast">
                    <div className="toast-title">
```

```
                        {time && (
                            <span className="date">
                                <FormattedTime hour='numeric' minute='numeric' second='numeric'
hour12={true} value={time} />
                            </span>
                        )}
                        <i className="fa fa-fw fa-exclamation-triangle" />
                        <FormattedMessage id={titleId} />
                    </div>
                    {
                        (message && typeof message === 'object') ?
                            <CustomScrollBar autoHeight={true} autoHeightMin={50}
autoHeightMax={100}>
                                {
                                    message.map((msg, index) => {
                                        return (
                                            <Fragment key={index}>
                                                <div className="toast-content">{msg}</div>
                                            </Fragment>
                                        )
                                    })
                                }
                            </CustomScrollBar> :
                            <div className="toast-content">
                                {message ? message : (messageId ? (<FormattedMessage id={messageId}
/>) : null)}
                            </div>
                    }
                </div>
            </Fragment>
        );
    }
}

export class CustomToastCloseButton extends Component {

    render() {
        return (
            <button type="button" className="toast-close" onClick={this.props.closeToast}>
                <i className="fa fa-fw fa-times-circle" />
            </button>
        );
    }
}

export default CustomToast;
```

src/components/CustomToast.scss

```
@import "../styles/common.scss";

.toast-container {
  .toast-item {
    white-space: pre-wrap;
    box-shadow: 0 0 5px 5px $box-shadow-color;
    -webkit-box-shadow: 0 0 5px 5px $box-shadow-color;

    &.Toastify__toast--success {
      background: $common-green;
```

```scss
    }

    &.Toastify__toast--error {
      background: $common-red;
    }

    &.Toastify__toast--warn {
      background: $colormain;
    }

    &.Toastify__toast--info {
      background: $colormain;
    }

    .toast-close {
      position: absolute;
      right: 10px;
      top:10px;
      color: $common-text-color;
      font-size: $base-size;
      padding: 0;
      cursor: pointer;
      background: transparent;
      border: 0;
      -webkit-appearance: none;
      transition: opacity 0.2s ease-out;
    }

    .toast-item-body {
      color: $common-text-color;
      display: block;
      flex: none;
      width: 100%;

      .toast-title {
        font-weight: bold;
        font-size: $base-size;
        margin: 0 20px 5px 0;

        .fixed-scroll-bar {
          height: 50px;
        }
        .date {
          float: right;
          font-size: $base-size - 2px;
          vertical-align: middle;
          margin-right: 5px;
          margin-bottom: 0;
          padding: 2px 5px;
        }

        i {
          position: relative;
          margin-right: 3px;
        }
      }

      .toast-content {
        font-size: $base-size - 2px;
      }
    }
  }
}
```

src/components/Navigator.js

```
import React, { Component, Fragment } from 'react';
import { Link, withRouter } from 'react-router-dom';
import { FormattedMessage } from 'react-intl';
import { connect } from 'react-redux';

import './Navigator.scss';

class MenuGroup extends Component {

    render() {
        const { name, children } = this.props;
        return (
            <li className="menu-group">
                <div className="menu-group-name">
                    <FormattedMessage id={name} />
                </div>
                <ul className="menu-list list-unstyled">
                    {children}
                </ul>
            </li>
        );
    }
}

class Menu extends Component {

    render() {
        const { name, active, link, children, onClick, hasSubMenu, onLinkClick } = this.props;
        return (
            <li className={"menu" + (hasSubMenu ? " has-sub-menu" : "") + ("") + (active ? " active"
: "")}>
                {hasSubMenu ? (
                    <Fragment>
                        <span
                            data-toggle="collapse"
                            className={"menu-link collapsed"}
                            onClick={onClick}
                            aria-expanded={"false"}
                        >
                            <FormattedMessage id={name} />
                            <div className="icon-right">
                                <i className={"far fa-angle-right"} />
                            </div>
                        </span>
                        <div>
                            <ul className="sub-menu-list list-unstyled">
                                {children}
                            </ul>
                        </div>
                    </Fragment>
                ) : (
                        <Link to={link} className="menu-link" onClick={onLinkClick}>
```

```
                            <FormattedMessage id={name} />
                        </Link>
                    )}
            </li>
        );
    }
}

class SubMenu extends Component {

    getItemClass = path => {
        return this.props.location.pathname === path ? "active" : "";
    };

    render() {
        const { name, link, onLinkClick } = this.props;
        return (
            <li className={"sub-menu " + this.getItemClass(link)}>
                <Link to={link} className="sub-menu-link" onClick={onLinkClick}>
                    <FormattedMessage id={name} />
                </Link>
            </li>
        );
    }
}

const MenuGroupWithRouter = withRouter(MenuGroup);
const MenuWithRouter = withRouter(Menu);
const SubMenuWithRouter = withRouter(SubMenu);

const withRouterInnerRef = (WrappedComponent) => {

    class InnerComponentWithRef extends React.Component {
        render() {
            const { forwardRef, ...rest } = this.props;
            return <WrappedComponent {...rest} ref={forwardRef} />;
        }
    }

    const ComponentWithRef = withRouter(InnerComponentWithRef, { withRef: true });

    return React.forwardRef((props, ref) => {
        return <ComponentWithRef {...props} forwardRef={ref} />;
    });
};

class Navigator extends Component {
    state = {
        expandedMenu: {}
    };

    toggle = (groupIndex, menuIndex) => {
        const expandedMenu = {};
        const needExpand = !(this.state.expandedMenu[groupIndex + '_' + menuIndex] === true);
        if (needExpand) {
            expandedMenu[groupIndex + '_' + menuIndex] = true;
        }

        this.setState({
            expandedMenu: expandedMenu
        });
    };

    isMenuHasSubMenuActive = (location, subMenus, link) => {
        if (subMenus) {
            if (subMenus.length === 0) {
                return false;
            }

            const currentPath = location.pathname;
            for (let i = 0; i < subMenus.length; i++) {
                const subMenu = subMenus[i];
                if (subMenu.link === currentPath) {
                    return true;
                }
            }
        }

        if (link) {
            return this.props.location.pathname === link;
        }

        return false;
    };

    checkActiveMenu = () => {
        const { menus, location } = this.props;
        outerLoop:
        for (let i = 0; i < menus.length; i++) {
            const group = menus[i];
            if (group.menus && group.menus.length > 0) {
                for (let j = 0; j < group.menus.length; j++) {
                    const menu = group.menus[j];
                    if (menu.subMenus && menu.subMenus.length > 0) {
                        if (this.isMenuHasSubMenuActive(location, menu.subMenus, null)) {
                            const key = i + '_' + j;
                            this.setState({
                                expandedMenu: {
                                    [key]: true
                                }
                            });
                            break outerLoop;
                        }
                    }
                }
            }
        }
    };

    componentDidMount() {
        this.checkActiveMenu();
    };

    // componentWillReceiveProps(nextProps, prevState) {
    //     const { location, setAccountMenuPath, setSettingMenuPath } = this.props;
    //     const { location: nextLocation } = nextProps;
    //     if (location !== nextLocation) {
    //         let pathname = nextLocation && nextLocation.pathname;
    //          if ((pathname.startsWith('/account/') || pathname.startsWith('/fds/account/'))) {
    //              setAccountMenuPath(pathname);
    //          }
    //          if (pathname.startsWith('/settings/')) {
    //              setSettingMenuPath(pathname);
    //          };
    //      };
    // };

    componentDidUpdate(prevProps, prevState) {
        const { location } = this.props;
        const { location: prevLocation } = prevProps;
        if (location !== prevLocation) {
            this.checkActiveMenu();
        };
    };

    render() {
        const { menus, location, onLinkClick } = this.props;
        return (
            <Fragment>
                <ul className="navigator-menu list-unstyled">
                    {
                        menus.map((group, groupIndex) => {
                            return (
                                <Fragment key={groupIndex}>
                                    <MenuGroupWithRouter name={group.name}>
                                        {group.menus ? (
                                            group.menus.map((menu, menuIndex) => {
                                                const isMenuHasSubMenuActive =
this.isMenuHasSubMenuActive(location, menu.subMenus, menu.link);
                                                const isSubMenuOpen =
this.state.expandedMenu[groupIndex + '_' + menuIndex] === true;
                                                return (
                                                    <MenuWithRouter
                                                        key={menuIndex}
                                                        active={isMenuHasSubMenuActive}
                                                        name={menu.name}
                                                        link={menu.link}
                                                        hasSubMenu={menu.subMenus}
                                                        isOpen={isSubMenuOpen}
                                                        onClick={() => this.toggle(groupIndex,
menuIndex)}
                                                        onLinkClick={onLinkClick}
                                                    >
                                                        {menu.subMenus &&
menu.subMenus.map((subMenu, subMenuIndex) => (
                                                            <SubMenuWithRouter
                                                                key={subMenuIndex}
                                                                name={subMenu.name}
                                                                link={subMenu.link}
                                                                onClick={this.closeOtherExpand}
                                                                onLinkClick={onLinkClick}
                                                            />
                                                        ))}
                                                    </MenuWithRouter>
                                                );
                                            })
                                        ) : null}
                                    </MenuGroupWithRouter>
                                </Fragment>
                            );
                        })
                    }
                </ul>
            </Fragment>
        );
    }
}

const mapStateToProps = state => {
    return {
    };
};

const mapDispatchToProps = dispatch => {
    return {
    }
}

export default withRouterInnerRef(connect(mapStateToProps, mapDispatchToProps)(Navigator));
```

src/components/Navigator.scss

```
@import "../styles/common.scss";

.navigator-menu {
    display: flex;
    margin: 0;
    padding: 0;
    &.list-unstyled,
    .list-unstyled {
        list-style-type: none;
    }
    .menu-group {
        &:hover {
            cursor: pointer;
            background-color: darken($colormain, 5);
        }
        .menu-group-name {
            line-height: 40px;
            padding: 0 15px;
            border-right: 1px solid $border;
            &:first-child {
                border-left: 1px solid $border;
            }
        }
        .menu-list {
            display: none;
            background-color: $bg-menu-color;
            box-shadow: 2px 2px 4px 0 $box-shadow-color;
            -webkit-box-shadow: 2px 2px 4px 0 $box-shadow-color;
            color: $text-in-light;
            position: absolute;
            padding: 0;
            .menu {
                width: 205px;
                padding: 0 15px;
                height: 35px;
                line-height: 35px;
                text-transform: none;
                .menu-link {
                    text-decoration: none;
                    color: $text-in-light;
                }
                .sub-menu-list {
                    display: none;
                    background-color: $bg-menu-color;
                    box-shadow: 2px 2px 4px 0 $box-shadow-color;
                    -webkit-box-shadow: 2px 2px 4px 0 $box-shadow-color;
                    position: absolute;
                    top: 0;
                    left: 205px;
                    padding: 0;
                    .sub-menu {
                        padding: 0 15px;
                        height: 35px;
                        line-height: 35px;
                        white-space: nowrap;
                        &:hover {
                            background-color: darken($bg-menu-color, 5);
                        }
                        .sub-menu-link {
                            text-decoration: none;
                            color: $text-in-light;
                        }
                        a {
                            display: block;
                        }
                        &.active a {
                            font-weight: 500;
                            color: $colormain;
                        }
                    }
                }
                &.active span {
                    font-weight: 500;
                    color: $colormain;
                }
                &:hover {
                    background-color: darken($bg-menu-color, 3);
                    .sub-menu-list {
                        display: block;
                    }
                }
                .icon-right {
                    display: block;
                    position: absolute;
                    top: 0;
                    right: 10px;
                }
            }
        }
        &:hover {
            .menu-list {
                display: block;
            }
        }
    }
}
```

src/hoc/

Authentication.js

```
import locationHelperBuilder from "redux-auth-wrapper/history4/locationHelper";
import { connectedRouterRedirect } from "redux-auth-wrapper/history4/redirect";

const locationHelper = locationHelperBuilder({});

export const userIsAuthenticated = connectedRouterRedirect({
    authenticatedSelector: state => state.admin.isLoggedIn,
    wrapperDisplayName: 'UserIsAuthenticated',
    redirectPath: '/login'
});

export const userIsNotAuthenticated = connectedRouterRedirect({
    // Want to redirect the user when they are authenticated
    authenticatedSelector: state => !state.admin.isLoggedIn,
    wrapperDisplayName: 'UserIsNotAuthenticated',
    redirectPath: (state, ownProps) => locationHelper.getRedirectQueryParam(ownProps) || '/',
    allowRedirectBack: false
});
```

IntProviderWrapper.js

```
import React, { Component } from "react";
import { connect } from 'react-redux';
import { IntlProvider } from "react-intl";

import '@formatjs/intl-pluralrules/polyfill';
import '@formatjs/intl-pluralrules/locale-data/en';
import '@formatjs/intl-pluralrules/locale-data/vi';

import '@formatjs/intl-relativetimeformat/polyfill';
import '@formatjs/intl-relativetimeformat/locale-data/en';
import '@formatjs/intl-relativetimeformat/locale-data/vi';

import { LanguageUtils } from '../utils'

const messages = LanguageUtils.getFlattenedMessages();

class IntlProviderWrapper extends Component {

    render() {
        const { children, language } = this.props;
        return (
            <IntlProvider
                locale={language}
                messages={messages[language]}
                defaultLocale="vi">
                {children}
            </IntlProvider>
        );
    }
}

const mapStateToProps = state => {
    return {
        language: state.app.language
    };
};

export default connect(mapStateToProps, null)(IntlProviderWrapper);
```

PrivateRoute.js

```
import React from 'react';
import { Route, Redirect } from 'react-router-dom';

const PrivateRoute = ({ component: Component, role, render, ...rest }) => {
   const token = localStorage.getItem('token');
   const roleId = localStorage.getItem('roleId');

   return (
      <Route
         {...rest}
         render={(props) => {
            if (!token) return <Redirect to="/login" />;
            if (role && roleId !== role) return <Redirect to="/" />;
            return render ? render(props) : <Component {...props} />;
         }}
      />
   );
};

export default PrivateRoute;
```

src/layouts/

AdminLayout.js

Đang phát triển…

PublicLayout.js

```
import React from 'react';
import Header from '../components/Header/Header';
import Footer from '../components/Footer/Footer';

const PublicLayout = (props) => {
   return (
      <>
         <Header />
         <main className="main-content">
            {props.children}
         </main>
         <Footer />
      </>
   );
};

export default PublicLayout;
```

src/pages/

src/admin/

ProductManager.js

```
import React, { Component } from 'react';
import { FormattedMessage } from 'react-intl';
import { connect } from 'react-redux';
class ProductManage extends Component {

    state = {

    }

    componentDidMount() {
    }


    render() {
        return (
            <div className="text-center" >Manage products</div>
        )
    }

}

const mapStateToProps = state => {
    return {
    };
};

const mapDispatchToProps = dispatch => {
    return {
    };
};

export default connect(mapStateToProps, mapDispatchToProps)(ProductManage);
```

RegisterPackageGroupOrAcc.js

```
import React, { Component } from 'react';
import { FormattedMessage } from 'react-intl';
import { connect } from 'react-redux';
class RegisterPackageGroupOrAcc extends Component {

    constructor(props) {
        super(props);

    }

    render() {
        return (
            <div className="text-center">
                register package group or account
            </div>)
    }

}

const mapStateToProps = state => {
    return {

    };
};

const mapDispatchToProps = dispatch => {
    return {
    };
};

export default connect(mapStateToProps, mapDispatchToProps)(RegisterPackageGroupOrAcc);
```

UserManager.js

```
import React, { Component } from 'react';
import { FormattedMessage } from 'react-intl';
import { connect } from 'react-redux';
class UserManage extends Component {

    state = {

    }

    componentDidMount() {

    }


    render() {
        return (
            <div className="text-center">Manage users</div>
        );
    }

}

const mapStateToProps = state => {
    return {
    };
};

const mapDispatchToProps = dispatch => {
    return {
    };
};

export default connect(mapStateToProps, mapDispatchToProps)(UserManage);
```

src/auth/

Login.js

```
import React, { Component } from 'react';
import { connect } from 'react-redux';
import { push } from "connected-react-router";

import * as actions from "../../store/actions";
import './Login.scss';

import { FormattedMessage } from 'react-intl';

class Login extends Component {
   constructor(props) {
      super(props);
   }


   render() {
      return (
         <div>login</div>
      )
   }
}

const mapStateToProps = state => {
   return {
      lang: state.app.language
   };
};

const mapDispatchToProps = dispatch => {
   return {
      navigate: (path) => dispatch(push(path)),
      adminLoginSuccess: (adminInfo) => dispatch(actions.adminLoginSuccess(adminInfo)),
      adminLoginFail: () => dispatch(actions.adminLoginFail()),
   };
};

export default connect(mapStateToProps, mapDispatchToProps)(Login);
```

Login.scss

src/home/

Home.js

```
import React, { Component } from 'react';
import { connect } from 'react-redux';
import { push } from "connected-react-router";

import * as actions from "../../store/actions";
import './Home.scss';

import { FormattedMessage } from 'react-intl';

class Home extends Component {
   constructor(props) {
      super(props);
   }


   render() {
      return (
         <div>Home</div>
      )
   }
}

const mapStateToProps = state => {
   return {
      lang: state.app.language
   };
};

const mapDispatchToProps = dispatch => {
   return {
      navigate: (path) => dispatch(push(path)),
      adminLoginSuccess: (adminInfo) => dispatch(actions.adminLoginSuccess(adminInfo)),
      adminLoginFail: () => dispatch(actions.adminLoginFail()),
   };
};

export default connect(mapStateToProps, mapDispatchToProps)(Home);
```

Home.scss

src/user/

Profile.js

```
import React, { Component } from 'react';
import { connect } from 'react-redux';
import { push } from "connected-react-router";

import * as actions from "../../store/actions";
import './Profile.scss';

import { FormattedMessage } from 'react-intl';

class Profile extends Component {
   constructor(props) {
      super(props);
   }


   render() {
      return (
         <div>Profile</div>
      )
   }
}

const mapStateToProps = state => {
   return {
      lang: state.app.language
   };
};

const mapDispatchToProps = dispatch => {
   return {
      navigate: (path) => dispatch(push(path)),
      adminLoginSuccess: (adminInfo) => dispatch(actions.adminLoginSuccess(adminInfo)),
      adminLoginFail: () => dispatch(actions.adminLoginFail()),
   };
};

export default connect(mapStateToProps, mapDispatchToProps)(Profile);
```

Profile.scss

src/routes/

AppRoutes.js

```
import React from 'react';
import { Switch, Route, Redirect } from 'react-router-dom';
import PublicLayout from '../layouts/PublicLayout';
import AdminLayout from '../layouts/AdminLayout';
import PrivateRoute from '../hoc/PrivateRoute';

import Home from '../pages/home/Home';
import Login from '../pages/auth/Login';
import Profile from '../pages/user/Profile';

const AppRoutes = () => {
   return (
      <Switch>
         {/* Trang HOME - không cần đăng nhập */}
         <Route
            path="/"
            exact
            render={(props) => (
               <PublicLayout>
                  <Home {...props} />
               </PublicLayout>
            )}
         />

         {/* Login */}
         <Route
            path="/login"
            render={(props) => (
               <PublicLayout>
```

```
                <Login {...props} />
            </PublicLayout>
         )}
      />

      {/* Profile - cần login với role = 2 (user) */}
      <PrivateRoute
         path="/profile"
         role="2"
         render={(props) => (
            <PublicLayout>
               <Profile {...props} />
            </PublicLayout>
         )}
      />

      {/* Admin - cần login với role = 1 (admin) */}
      <PrivateRoute
         path="/admin"
         role="1"
         render={(props) => (
            <AdminLayout>
               <div>Trang admin</div>
            </AdminLayout>
         )}
      />

      {/* Redirect fallback */}
      <Redirect to="/" />
   </Switch>
  );
};

export default AppRoutes;
```

src/services/

adminService.js

```
import axios from '../axios';
import * as queryString from 'query-string';

const adminService = {

    /**
     * Đăng nhập hệ thống
     * {
     *  "username": "string",
     *  "password": "string"
     * }
     */
    login(loginBody) {
        return axios.post(`/admin/login`, loginBody)
    },

};
```

```
export default adminService;
```

index.js

```
export { default as adminService } from './adminService';
```

src/store/

src/store/actions/

actionType.js

```
const actionTypes = Object.freeze({
    //app
    APP_START_UP_COMPLETE: 'APP_START_UP_COMPLETE',
    SET_CONTENT_OF_CONFIRM_MODAL: 'SET_CONTENT_OF_CONFIRM_MODAL',

    //admin
    ADMIN_LOGIN_SUCCESS: 'ADMIN_LOGIN_SUCCESS',
    ADMIN_LOGIN_FAIL: 'ADMIN_LOGIN_FAIL',
    PROCESS_LOGOUT: 'PROCESS_LOGOUT',

    //user
    ADD_USER_SUCCESS: 'ADD_USER_SUCCESS',
})

export default actionTypes;
```

adminActions.js

```
import actionTypes from './actionTypes';

export const adminLoginSuccess = (adminInfo) => ({
    type: actionTypes.ADMIN_LOGIN_SUCCESS,
    adminInfo: adminInfo
})

export const adminLoginFail = () => ({
    type: actionTypes.ADMIN_LOGIN_FAIL
})

export const processLogout = () => ({
    type: actionTypes.PROCESS_LOGOUT
})
```

appActions.js

```
import actionTypes from './actionTypes';

export const appStartUpComplete = () => ({
    type: actionTypes.APP_START_UP_COMPLETE
});

export const setContentOfConfirmModal = (contentOfConfirmModal) => ({
    type: actionTypes.SET_CONTENT_OF_CONFIRM_MODAL,
    contentOfConfirmModal: contentOfConfirmModal
});
```

index.js

```
export * from './appActions'
export * from './adminActions'
export * from './userActions'
```

userActions.js

```
import actionTypes from './actionTypes';

export const addUserSuccess = () => ({
    type: actionTypes.ADD_USER_SUCCESS
})
```

src/store/reducers/

adminReducer.js

```
import actionTypes from '../actions/actionTypes';

const initialState = {
    isLoggedIn: false,
    adminInfo: null
}

const appReducer = (state = initialState, action) => {
    switch (action.type) {
        case actionTypes.ADMIN_LOGIN_SUCCESS:
            return {
                ...state,
                isLoggedIn: true,
                adminInfo: action.adminInfo
            }
        case actionTypes.ADMIN_LOGIN_FAIL:
            return {
                ...state,
                isLoggedIn: false,
                adminInfo: null
            }
        case actionTypes.PROCESS_LOGOUT:
            return {
                ...state,
                isLoggedIn: false,
                adminInfo: null
            }
        default:
            return state;
    }
}

export default appReducer;
```

appReducer.js

```
import actionTypes from '../actions/actionTypes';

const initContentOfConfirmModal = {
    isOpen: false,
    messageId: "",
    handleFunc: null,
    dataFunc: null
}

const initialState = {
    started: true,
    language: 'vi',
    systemMenuPath: '/system/user-manage',
    contentOfConfirmModal: {
        ...initContentOfConfirmModal
    }
}

const appReducer = (state = initialState, action) => {
    switch (action.type) {
        case actionTypes.APP_START_UP_COMPLETE:
            return {
                ...state,
                started: true
            }
        case actionTypes.SET_CONTENT_OF_CONFIRM_MODAL:
            return {
                ...state,
                contentOfConfirmModal: {
                    ...state.contentOfConfirmModal,
                    ...action.contentOfConfirmModal
                }
            }
        default:
            return state;
    }
}

export default appReducer;
```

rootReducer.js

```
import {combineReducers} from 'redux';
import { connectRouter } from 'connected-react-router';

import appReducer from "./appReducer";
import adminReducer from "./adminReducer";
import userReducer from "./userReducer";

import autoMergeLevel2 from 'redux-persist/lib/stateReconciler/autoMergeLevel2';
import storage from 'redux-persist/lib/storage';
import { persistReducer } from 'redux-persist';

const persistCommonConfig = {
    storage: storage,
    stateReconciler: autoMergeLevel2,
};

const adminPersistConfig = {
    ...persistCommonConfig,
    key: 'admin',
    whitelist: ['isLoggedIn', 'adminInfo']
};
```

```
export default (history) => combineReducers({
    router: connectRouter(history),
    admin: persistReducer(adminPersistConfig, adminReducer),
    user: userReducer,
    app: appReducer
})
```

userReducer.js

Đang phát triển…

src/styles/

_base.scss

```
/*
 * General styles
 */
 body, html {
    background-image: "#fff";
    background-repeat: no-repeat;
    background-size: cover;
    font-family: $fontmain;
    font-size: $base-size - 2px;
    height: 100vh;
    overflow: hidden;
}

.btn {
    padding: 0;
    border: none;
    cursor: pointer;
    font-weight: 700;
    height: 30px;
    line-height: 30px;
    -moz-user-select: none;
    -webkit-user-select: none;
    user-select: none;
    i {
      font-size: $base-size - 3px;
    }
}

.btn-edit,
.btn-add,
.btn-delete,
.btn-assign {
  background-color: $colormain;
  color: $common-text-color;
  &:hover {
    color: $common-text-color;
    background-color: darken($colormain, 5);
  }
}

#password:invalid {
  font-family: $fontmain; // Fixed TH hien thi placeholder cho EDGE
}
```

```scss
#password:-webkit-input-placeholder {
  font-family: $fontmain; // CHROME 1
}
#password::-webkit-input-placeholder {
  font-family: $fontmain; //CHROME 2   EDGE 1
}
#password:-moz-placeholder {
  font-family: $fontmain; // Firefox 4-18
}
#password::-moz-placeholder {
  font-family: $fontmain; // Firefox 19+
}
#password:-ms-input-placeholder {
  font-family: $fontmain; // IE 10-11
}
#password::-ms-input-placeholder {
  font-family: $fontmain; // EDGE 2
}
#password::placeholder {
  font-family: $fontmain;
}

.content-container {
  .title {
    text-align: center;
    text-transform: uppercase;
    font-weight: bold;
    font-size: $base-size + 4px;
    margin-top: 15px;
    color: $colormain;
  }
  .content {
    margin: 15px 30px;
    box-shadow: 2px 2px 4px 0 $box-shadow-color;
    -webkit-box-shadow: 2px 2px 4px 0 $box-shadow-color;
  }
}

.modal {
  .modal-dialog {
    .modal-content {
      .modal-header {
        padding: 0 10px;
        height: 35px;
        background-color: $colormain;
        color: $common-text-color;
        .modal-title {
          line-height: 35px;
          font-weight: 500;
          font-size: $base-size + 1px;
        }
        .btn-close {
          position: absolute;
          color: $common-text-color;
          i {
            line-height: 35px;
            font-size: $base-size + 2px;
          }
        }
      }
    }
  }
}
```

_form.scss

```
@import "common";

.custom-form-group {

  .custom-form-control {
    background-color: $common-white;
    border: 1px solid $border;
    &.readonly {
      cursor: not-allowed;
      background-color: darken($common-white, 5);
    }
    &:focus {
      outline: none;
      border: 1px solid darken($border, 50);
    }
  }

  select.custom-form-control {
    background-image: $dropdown-image;
  }

  margin-bottom: 10px;

  label {
    margin-bottom: 1px;
  }

  .custom-form-control {
    display: block;
    width: 100%;
    height: 28px;
    padding: 0 5px;
    line-height: 26px;
    border-radius: 5px;
  }

  textarea.custom-form-control {
    min-height: 28px;
    height: auto;
  }

  select.custom-form-control {
    -webkit-appearance: none;
    -moz-appearance: none;

    padding-right: 15px;

    background-position: right top;
    background-repeat: no-repeat;
    background-size: 15px 100%;

    cursor: pointer;
    &:disabled {
      cursor: not-allowed;
    }
  }

  .custom-checkbox-control {
    line-height: 28px;

    input {
      cursor: pointer;
    }

    label {
      margin-left: 5px;
    }
  }

}
```

_variables.scss

```
$base-size: 16px;
$lh: 1.313;
$fontmain:"Helvetica", -apple-system, BlinkMacSystemFont, "Segoe UI", Roboto, "Helvetica Neue",
Arial, "Noto Sans", sans-serif, "Apple Color Emoji", "Segoe UI Emoji", "Segoe UI Symbol", "Noto
Color Emoji";
$colormain:#0071ba;
$colorsub:#bb8d09;
$common-text-color:white;
$common-btn-confirm: #185ba8;
$common-btn-deny: #bb8d09;
$common-error: #ff9600;
$common-notify: greenyellow;
$common-green: #00C087;
$common-red: #d01a1d;
$common-white: #fff;
$common-orange: #FFAC42;
$border: #ccc;
$text-in-light: #181818;

$input-focus: #FFAC42;

$footer-container: #f5f5f5;
$footer-text: #262626;
$footer-next-disable: #ccc;

$bg-menu-color: #f5f5f5;
$bg-scrollbar: #000;
$bg-table-color: #f5f5f5;
$box-shadow-color: #0000004d;

$dropdown-image: url("../assets/images/dropdown.svg");

//date picker
$date-picker-bg: $common-white;
$date-picker-border: darken(#3f4458, 50%);
$date-picker-arrow-hover: $common-orange;
```

```
$date-picker-month-fg: #000;
$date-picker-month-bg: $common-white;
$date-picker-weekdays-fg: #000;
$date-picker-weekdays-bg: transparent;
$date-picker-day-fg: #000;
$date-picker-day-hover-bg: darken($common-white, 25%);
$date-picker-today-border: $common-orange;
$date-picker-today-bg: $common-orange;
$date-picker-today-fg: #000;
$date-picker-day-selected-fg: $common-white;
```

common.scss

```
@import "variables";

.text-center {
    text-align: center !important;
}

.text-left {
    text-align: left !important;
}

.text-right {
    text-align: right !important;
}

.text-red {
    color: $common-red !important;
}
```

styles.scss

```
@import "variables";
@import "../../node_modules/bootstrap/scss/bootstrap";

$fa-font-path : "~@fortawesome/fontawesome-free-webfonts/webfonts";
@import "~@fortawesome/fontawesome-free-webfonts/scss/fontawesome.scss";
@import "~@fortawesome/fontawesome-free-webfonts/scss/fa-solid.scss";
@import "~@fortawesome/fontawesome-free-webfonts/scss/fa-regular.scss";
@import "~@fortawesome/fontawesome-free-webfonts/scss/fa-brands.scss";

@import "base";
@import "form";
```

src/translations/

en.json

```
{
    "common": {
        "add": "Add",
        "edit": "Edit",
        "delete": "Delete"
    },
    "login": {
        "login": "Login",
        "username": "Username",
        "password": "Password"
    }
}
```

vi.json

```
{
    "common": {
        "add": "Thêm",
        "edit": "Sửa",
        "delete": "Xóa"
    },
    "login": {
        "login": "Đăng nhập",
        "username": "Tên đăng nhập",
        "password": "Mật khẩu"
    }
}
```

src/utils/

CommonUtils.js

```
class CommonUtils {
    static isNumber1 (number) {
        if (number === 1) return true;
        return false;
    }
}

export default CommonUtils;
```

Constant.js

```
export const path = {
    HOME: '/',
    LOGIN: '/login',
    LOG_OUT: '/logout',
    SYSTEM: '/system'
};

export const languages = {
    VI: 'vi',
    EN: 'en'
};

export const manageActions = {
    ADD: "ADD",
    EDIT: "EDIT",
    DELETE: "DELETE"
};

export const dateFormat = {
    SEND_TO_SERVER: 'DD/MM/YYYY'
};
```

```
export const YesNoObj = {
    YES: 'Y',
    NO: 'N'
}
```

index.js

```
export * from './constant';
export {default as CommonUtils} from './CommonUtils';
export {default as KeyCodeUtils} from './KeyCodeUtils';
export {default as LanguageUtils} from './LanguageUtils';
export {default as ToastUtil} from './ToastUtil';
```

KeyCodeUtils.js

```
class KeyCodeUtils {

    static UP = 38;

    static DOWN = 40;

    static TAB = 9;

    static ENTER = 13;

    static E = 69;

    static ESCAPE = 27;

    static isNavigation(e) {
        return (e >= 33 && e <= 40) || e === 9 || e === 8 || e === 46 || e === 14 || e === 13;
    }

    static isNumeric(e) {
        return (e >= 48 && e <= 57) || (e >= 96 && e <= 105);
    }
    static isAlphabetic(e) {
        return (e >= 65 && e <= 90);
    }
    static isDecimal(e) {
        return e === 190 || e === 188 || e === 108 || e === 110;
    }

    static isDash(e) {
        return e === 109 || e === 189;
    }
}

export default KeyCodeUtils;
```

LanguageUtils.js

```
import messages_vi from '../translations/vi.json';
import messages_en from '../translations/en.json';

const flattenMessages = ((nestedMessages, prefix = '') => {
    if (nestedMessages == null) {
        return {}
    }
    return Object.keys(nestedMessages).reduce((messages, key) => {
        const value = nestedMessages[key];
        const prefixedKey = prefix ? `${prefix}.${key}` : key;

        if (typeof value === 'string') {
            Object.assign(messages, {[prefixedKey]: value})
        } else {
            Object.assign(messages, flattenMessages(value, prefixedKey))
        }

        return messages
    }, {})
});

const messages = {
    'vi': flattenMessages(messages_vi),
    'en': flattenMessages(messages_en),
};

export default class LanguageUtils {
    static getMessageByKey(key, lang) {
        return messages[lang][key]
    }

    static getFlattenedMessages() {
        return messages;
    }
}
```

ToastUtil.js

```
import React from 'react';
import { toast } from 'react-toastify';
import axios from 'axios';

import CustomToast from "../components/CustomToast";

const TYPE_SUCCESS = 'SUCCESS';
const TYPE_INFO = 'INFO';
const TYPE_WARN = 'WARN';
const TYPE_ERROR = 'ERROR';

class ToastUtil {

    static success(title, message) {
        this.show(TYPE_SUCCESS, title, message);
    }

    static info(title, message) {
        this.show(TYPE_INFO, title, message);
    }

    static warn(title, message) {
        this.show(TYPE_WARN, title, message);
    }

    static error(title, message) {
        this.show(TYPE_ERROR, title, message);
    }

    static successRaw(title, message) {
        this.show(TYPE_SUCCESS, title, message, true);
    }

    static errorRaw(title, message, autoCloseDelay = 3000) {
        this.show(TYPE_ERROR, title, message, true, autoCloseDelay);
    }
    static errorApi(error, title = 'common.fail-to-load-data', autoCloseDelay = 3000) {
        if (axios.isCancel(error)) {
            // Do nothing if request was cancelled
            return;
        }
        let message = null;
        let messageId = 'common.unknown-error';
        if (error.httpStatusCode >= 500) {
            messageId = 'common.internal-server-error';
        } else if (error.httpStatusCode < 500 && error.httpStatusCode >= 400) {
            if (error.httpStatusCode === 400) {
                messageId = 'common.bad-request';
            } else if (error.httpStatusCode === 403) {
                messageId = 'common.forbiden-request';
            }
        } else {
            // Request fail even server was returned a success response
            if (error.errorMessage) {
                message = error.errorMessage
            }
        }
        toast.error(<CustomToast titleId={title} message={message} messageId={messageId} time={new
Date()} />, {
            position: toast.POSITION.BOTTOM_RIGHT,
            pauseOnHover: true,
            autoClose: autoCloseDelay
        });
    }

    static show(type, title, message, rawMessage = false, autoCloseDelay = 3000) {
        const content = <CustomToast titleId={title} messageId={rawMessage ? null : message}
message={rawMessage ? message : null} time={new Date()} />;
        const options = {
            position: toast.POSITION.BOTTOM_RIGHT,
            pauseOnHover: true,
            autoClose: autoCloseDelay
        };

        switch (type) {
            case TYPE_SUCCESS:
                toast.success(content, options);
                break;
            case TYPE_INFO:
                toast.info(content, options);
                break;
            case TYPE_WARN:
                toast.warn(content, options);
                break;
            case TYPE_ERROR:
                toast.error(content, options);
                break;
            default:
                break;
        }
    }
}

export default ToastUtil;
```

src/App.js/

```
import React from 'react';
import { BrowserRouter } from 'react-router-dom';
import AppRoutes from './routes/AppRoutes';
import { Provider } from 'react-redux';
import store from './redux';

function App() {
    return (
        <Provider store={store}>
            <BrowserRouter>
                <AppRoutes />
            </BrowserRouter>
        </Provider>
    );
}

export default App;
```

src/App.scss/

```
@import "../styles/common.scss";
```

src/axios.js/

```
import axios from 'axios';
import _ from 'lodash';

const instance = axios.create({
    baseURL: process.env.REACT_APP_BACKEND_URL,
    withCredentials: true,
});

const createError = (httpStatusCode, statusCode, errorMessage, problems, errorCode = '') => {
    const error = new Error();
    error.httpStatusCode = httpStatusCode;
    error.statusCode = statusCode;
    error.errorMessage = errorMessage;
    error.problems = problems;
    error.errorCode = String(errorCode);
    return error;
};
```

```
export const isSuccessStatusCode = (s) => {
    return (typeof s === 'number' && s === 0) || (typeof s === 'string' && s.toUpperCase() ===
'OK');
};

instance.interceptors.response.use(
    (response) => {
        const { data } = response;

        if (data.hasOwnProperty('s') && !isSuccessStatusCode(data.s) &&
data.hasOwnProperty('errmsg')) {
            return Promise.reject(createError(response.status, data.s, data.errmsg, null,
data.errcode || ""));
        }

        if (data.hasOwnProperty('s') && data.hasOwnProperty('d')) return data.d;
        if (data.hasOwnProperty('s') && _.keys(data).length === 1) return null;

        return data;
    },
    (error) => {
        const { response } = error;
        if (!response) return Promise.reject(error);

        const { data } = response;

        if (data?.s && data?.errmsg) {
            return Promise.reject(createError(response.status, data.s, data.errmsg));
        }

        if (data?.code && data?.message) {
            return Promise.reject(createError(response.status, data.code, data.message,
data.problems));
        }

        return Promise.reject(createError(response.status));
    }
);

export default instance;
```

src/index.js/

```
import React from 'react';
import ReactDOM from 'react-dom';
import 'react-toastify/dist/ReactToastify.css';
import './styles/styles.scss';

import App from './App';
import * as serviceWorker from './serviceWorker';
import IntlProviderWrapper from "./hoc/IntlProviderWrapper";


import { Provider } from 'react-redux';
import reduxStore, { persistor } from './redux';

const renderApp = () => {
    ReactDOM.render(
        <Provider store={reduxStore}>
            <IntlProviderWrapper>
                <App persistor={persistor} />
            </IntlProviderWrapper>
        </Provider>,
        document.getElementById('root')
    );
};

renderApp();
// If you want your app to work offline and load faster, you can change
// unregister() to register() below. Note this comes with some pitfalls.
// Learn more about service workers: https://bit.ly/CRA-PWA
serviceWorker.unregister();
```

src/redux.js/

```
import { logger } from "redux-logger";
import thunkMiddleware from "redux-thunk";
import { routerMiddleware } from 'connected-react-router';
import { createBrowserHistory } from 'history';

import { createStore, applyMiddleware, compose } from 'redux';
import { createStateSyncMiddleware } from 'redux-state-sync';
import { persistStore } from 'redux-persist';

import createRootReducer from './store/reducers/rootReducer';
import actionTypes from './store/actions/actionTypes';

const environment = process.env.NODE_ENV || "development";
let isDevelopment = environment === "development";

//hide redux logs
isDevelopment = false;


export const history = createBrowserHistory({ basename: process.env.REACT_APP_ROUTER_BASE_NAME });

const reduxStateSyncConfig = {
    whitelist: [
        actionTypes.APP_START_UP_COMPLETE,
    ]
}

const rootReducer = createRootReducer(history);
const middleware = [
    routerMiddleware(history),
    thunkMiddleware,
    createStateSyncMiddleware(reduxStateSyncConfig),
]
if (isDevelopment) middleware.push(logger);

const composeEnhancers = (isDevelopment && window.__REDUX_DEVTOOLS_EXTENSION_COMPOSE__) ?
window.__REDUX_DEVTOOLS_EXTENSION_COMPOSE__ : compose;

const reduxStore = createStore(
    rootReducer,
    composeEnhancers(applyMiddleware(...middleware)),
)

export const dispatch = reduxStore.dispatch;

export const persistor = persistStore(reduxStore);

export default reduxStore;
```

src/serviceWorker.js/

```
// This optional code is used to register a service worker.
// register() is not called by default.

// This lets the app load faster on subsequent visits in production, and gives
// it offline capabilities. However, it also means that developers (and users)
// will only see deployed updates on subsequent visits to a page, after all the
// existing tabs open on the page have been closed, since previously cached
// resources are updated in the background.

// To learn more about the benefits of this model and instructions on how to
// opt-in, read https://bit.ly/CRA-PWA

const isLocalhost = Boolean(
  window.location.hostname === 'localhost' ||
    // [::1] is the IPv6 localhost address.
    window.location.hostname === '[::1]' ||
    // 127.0.0.1/8 is considered localhost for IPv4.
    window.location.hostname.match(
      /^127(?:\.(?:25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)){3}$/
    )
);

export function register(config) {
  if (process.env.NODE_ENV === 'production' && 'serviceWorker' in navigator) {
    // The URL constructor is available in all browsers that support SW.
    const publicUrl = new URL(process.env.PUBLIC_URL, window.location.href);
    if (publicUrl.origin !== window.location.origin) {
      // Our service worker won't work if PUBLIC_URL is on a different origin
      // from what our page is served on. This might happen if a CDN is used to
      // serve assets; see https://github.com/facebook/create-react-app/issues/2374
      return;
    }

    window.addEventListener('load', () => {
      const swUrl = `${process.env.PUBLIC_URL}/service-worker.js`;

      if (isLocalhost) {
        // This is running on localhost. Let's check if a service worker still exists or not.
        checkValidServiceWorker(swUrl, config);

        // Add some additional logging to localhost, pointing developers to the
        // service worker/PWA documentation.
        navigator.serviceWorker.ready.then(() => {
          console.log(
            'This web app is being served cache-first by a service ' +
              'worker. To learn more, visit https://bit.ly/CRA-PWA'
          );
        });
      } else {
        // Is not localhost. Just register service worker
        registerValidSW(swUrl, config);
      }
    });
  }
}

function registerValidSW(swUrl, config) {
  navigator.serviceWorker
    .register(swUrl)
    .then(registration => {
      registration.onupdatefound = () => {
        const installingWorker = registration.installing;
        if (installingWorker == null) {
          return;
        }
        installingWorker.onstatechange = () => {
          if (installingWorker.state === 'installed') {
            if (navigator.serviceWorker.controller) {
              // At this point, the updated precached content has been fetched,
              // but the previous service worker will still serve the older
              // content until all client tabs are closed.
              console.log(
                'New content is available and will be used when all ' +
                  'tabs for this page are closed. See https://bit.ly/CRA-PWA.'
              );

              // Execute callback
              if (config && config.onUpdate) {
                config.onUpdate(registration);
              }
            } else {
              // At this point, everything has been precached.
              // It's the perfect time to display a
              // "Content is cached for offline use." message.
              console.log('Content is cached for offline use.');

              // Execute callback
              if (config && config.onSuccess) {
                config.onSuccess(registration);
              }
            }
          }
        };
      };
    })
    .catch(error => {
      console.error('Error during service worker registration:', error);
    });
}

function checkValidServiceWorker(swUrl, config) {
  // Check if the service worker can be found. If it can't reload the page.
  fetch(swUrl)
    .then(response => {
      // Ensure service worker exists, and that we really are getting a JS file.
      const contentType = response.headers.get('content-type');
      if (
        response.status === 404 ||
        (contentType != null && contentType.indexOf('javascript') === -1)
      ) {
        // No service worker found. Probably a different app. Reload the page.
        navigator.serviceWorker.ready.then(registration => {
          registration.unregister().then(() => {
            window.location.reload();
          });
        });
      } else {
        // Service worker found. Proceed as normal.
        registerValidSW(swUrl, config);
      }
    })
    .catch(() => {
      console.log(
        'No internet connection found. App is running in offline mode.'
      );
    });
}

export function unregister() {
  if ('serviceWorker' in navigator) {
    navigator.serviceWorker.ready.then(registration => {
      registration.unregister();
    });
  }
}
```

.env/

```
PORT=3000
NODE_ENV=development
REACT_APP_BACKEND_URL=http://localhost:8080

#The base URL for all locations. If your app is served from a sub-directory on your server, you'll
want to set
#this to the sub-directory. A properly formatted basename should have a leading slash, but no
trailing slash.
REACT_APP_ROUTER_BASE_NAME=
```

.gitignore/

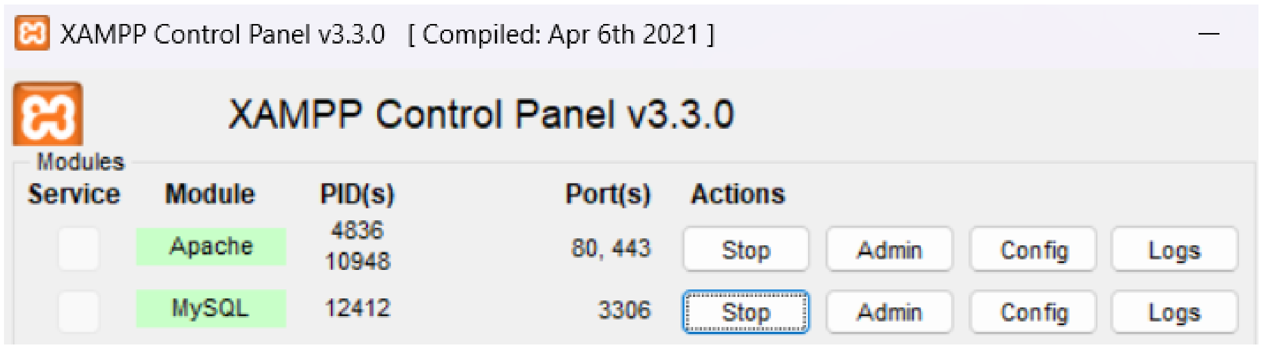
```
# See https://help.github.com/articles/ignoring-files/ for more about ignoring files.

# dependencies
/node_modules
/.pnp
.pnp.js

# testing
/coverage
```

```
# production
/build

# misc
.DS_Store
.env.local
.env.development.local
.env.test.local
.env.production.local

npm-debug.log*
yarn-debug.log*
yarn-error.log*
```

package.json/

```
{
  "name": "nguyenlien",
  "version": "0.1.0",
  "private": true,
  "dependencies": {
    "@formatjs/intl-pluralrules": "^3.5.6",
    "@formatjs/intl-relativetimeformat": "^7.3.6",
    "@fortawesome/fontawesome-free-webfonts": "^1.0.9",
    "axios": "^0.21.1",
    "bootstrap": "^5.0.1",
    "connected-react-router": "^6.9.1",
    "lodash": "^4.17.21",
    "moment": "^2.29.0",
    "react": "^17.0.2",
    "react-auth-wrapper": "^1.0.0",
    "react-autosuggest": "^10.1.0",
    "react-custom-scrollbars-2": "^4.5.0",
    "react-dom": "^17.0.2",
    "react-flatpickr": "^3.10.7",
    "react-intl": "^5.20.2",
    "react-redux": "^7.2.4",
    "react-router": "^5.2.0",
    "react-router-dom": "^5.2.0",
    "react-scripts": "^4.0.3",
    "react-toastify": "^5.5.0",
    "reactstrap": "^8.9.0",
    "redux": "^4.1.0",
    "redux-auth-wrapper": "^2.1.0",
    "redux-logger": "^3.0.6",
    "redux-persist": "^5.10.0",
    "redux-state-sync": "^2.1.0",
    "redux-thunk": "^2.3.0",
    "typescript": "^4.3.2"
  },
  "scripts": {
    "start": "set NODE_OPTIONS=--openssl-legacy-provider && react-scripts start",
    "build": "react-scripts build",
    "test": "react-scripts test",
    "eject": "react-scripts eject"
  },
  "eslintConfig": {
    "extends": "react-app"
  },
  "browserslist": {
    "production": [
      ">0.2%",
      "not dead",
      "not op_mini all"
    ],
    "development": [
      "last 1 chrome version",
      "last 1 firefox version",
      "last 1 safari version"
    ]
  },
  "devDependencies": {
    "sass": "^1.89.2"
  }
}
```

Database – MySQL



XAMPP Control Panel v3.3.0 [Compiled: Apr 6th 2021]

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Modules

Service	Module	PID(s)	Port(s)	Actions			
	Apache	4836 10948	80, 443	Stop	Admin	Config	Logs
	MySQL	12412	3306	Stop	Admin	Config	Logs