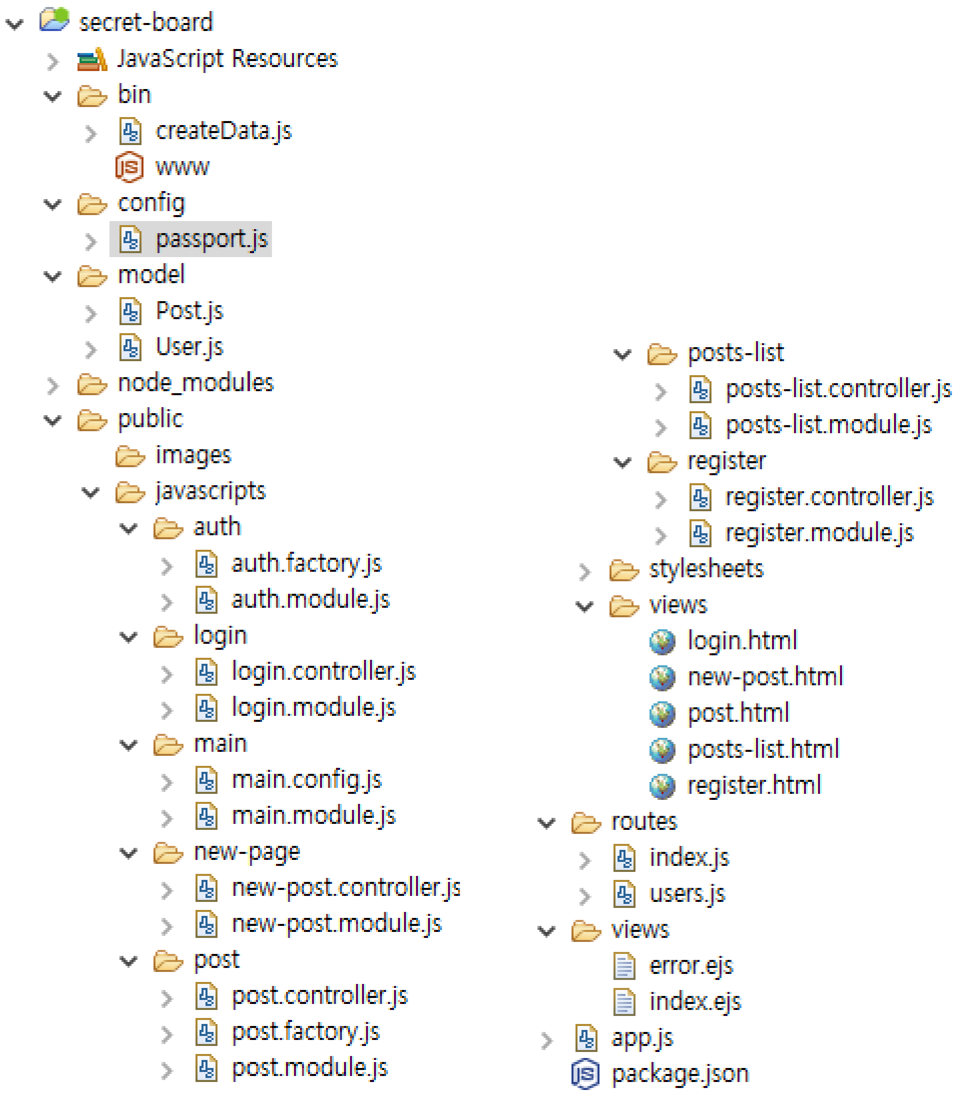
- Private board using MEAN stack

1. Primary function

- Register & login. And Post, update, delete post

2. Directory structure

- Use express-generator to generate skeleton

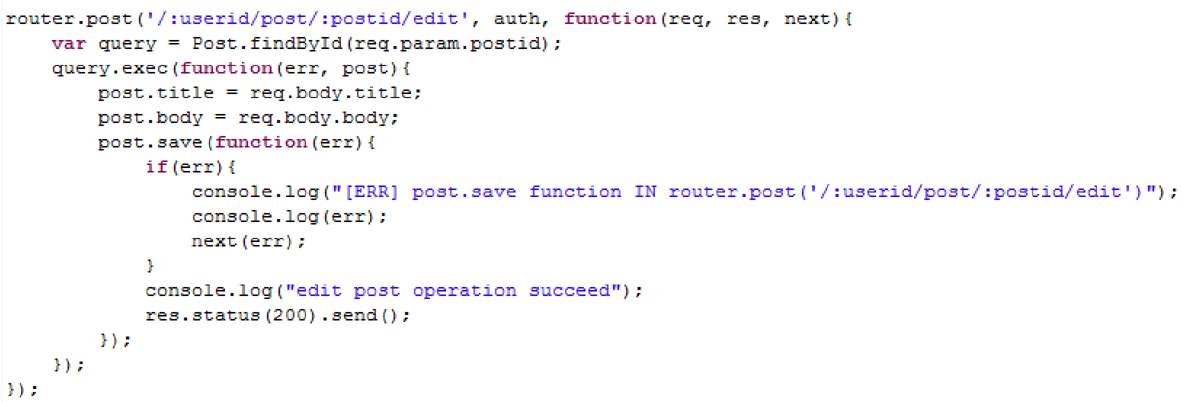


```
secret-board
  JavaScript Resources
  bin
    createData.js
    www
  config
    passport.js
  model
    Post.js
    User.js
  node_modules
  public
    images
    javascripts
      auth
        auth.factory.js
        auth.module.js
      login
        login.controller.js
        login.module.js
      main
        main.config.js
        main.module.js
      new-page
        new-post.controller.js
        new-post.module.js
      post
        post.controller.js
        post.factory.js
        post.module.js
      posts-list
        posts-list.controller.js
        posts-list.module.js
      register
        register.controller.js
        register.module.js
    stylesheets
    views
      login.html
      new-post.html
      post.html
      posts-list.html
      register.html
  routes
    index.js
    users.js
  views
    error.ejs
    index.ejs
  app.js
  package.json
```

- divide module for useful management, use $stateprovider service of angularjs

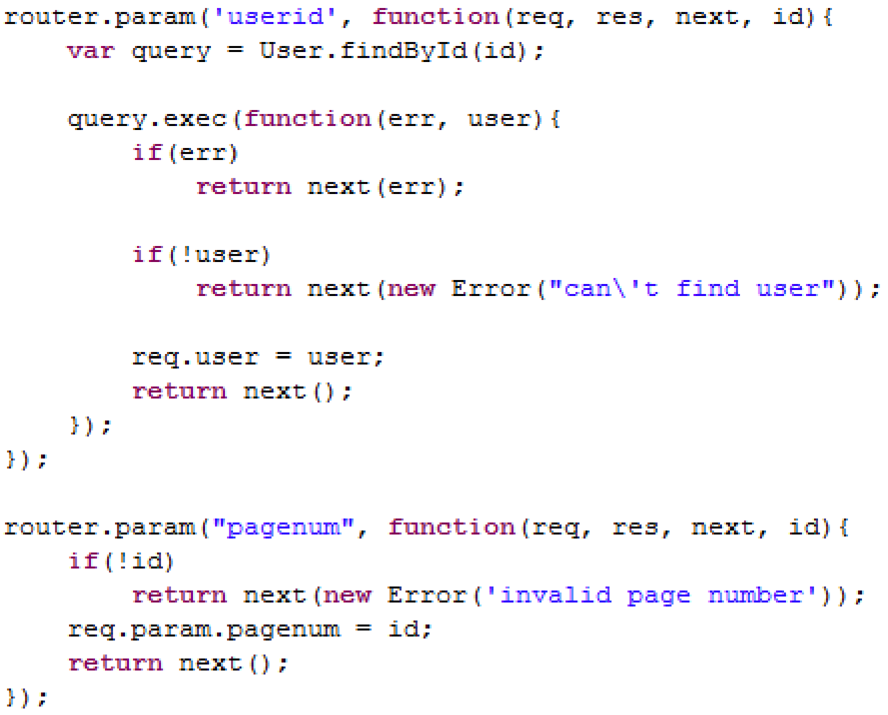
3. Implementation

- Server side javascript code(using express's Router)



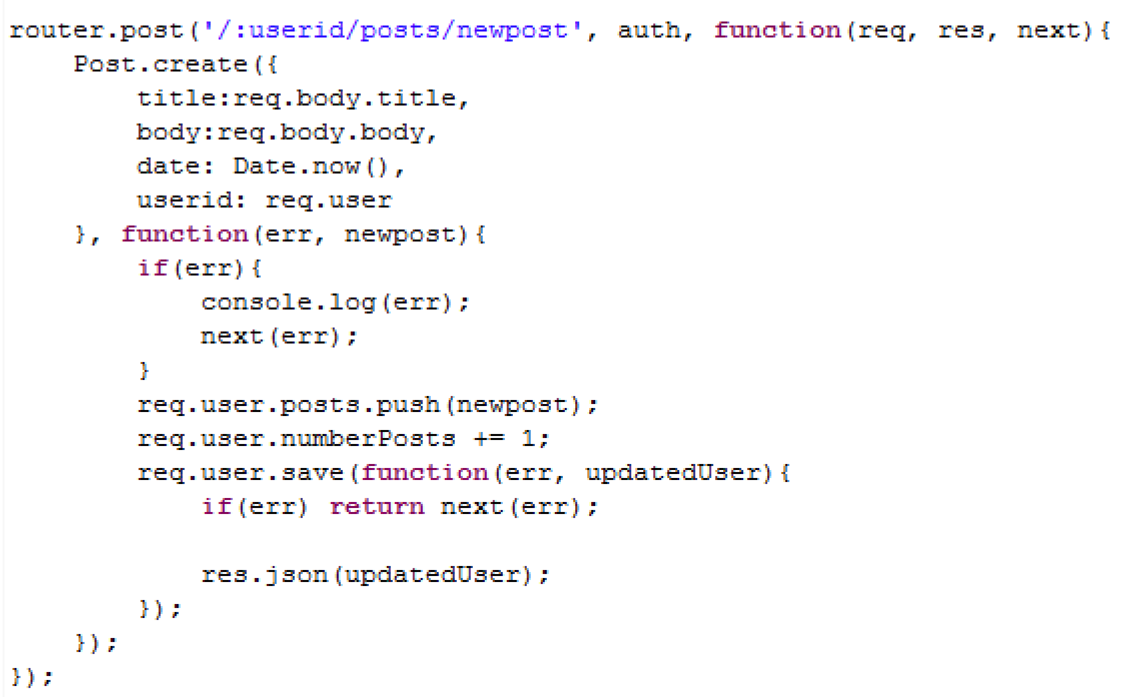
```
router.post('/:userid/post/:postid/edit', auth, function(req, res, next){
    var query = Post.findById(req.param.postid);
    query.exec(function(err, post){
        post.title = req.body.title;
        post.body = req.body.body;
        post.save(function(err){
            if(err){
                console.log("[ERR] post.save function IN router.post('/:userid/post/:postid/edit')");
                console.log(err);
                next(err);
            }
            console.log("edit post operation succeed");
            res.status(200).send();
        });
    });
});
```

<One of the handler for many methods>



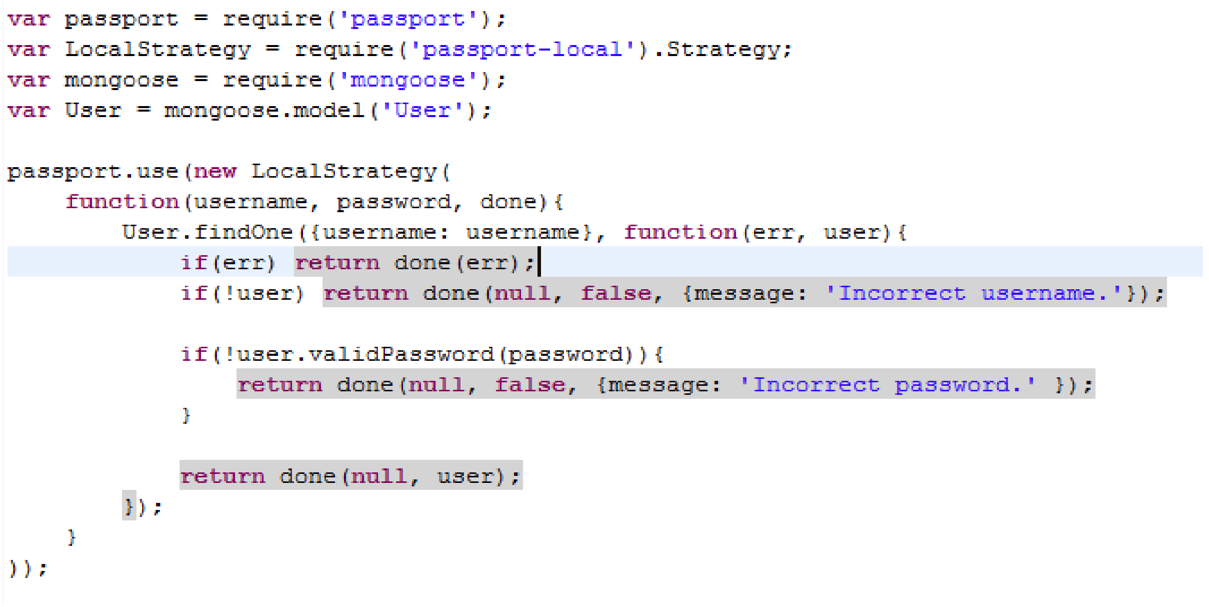
```
router.param('userid', function(req, res, next, id){
    var query = User.findById(id);

    query.exec(function(err, user){
        if(err)
            return next(err);

        if(!user)
            return next(new Error("can\'t find user"));

        req.user = user;
        return next();
    });
});

router.param("pagenum", function(req, res, next, id){
    if(!id)
        return next(new Error('invalid page number'));
    req.param.pagenum = id;
    return next();
});
```

<Get parameter from the URL to use properly later process>

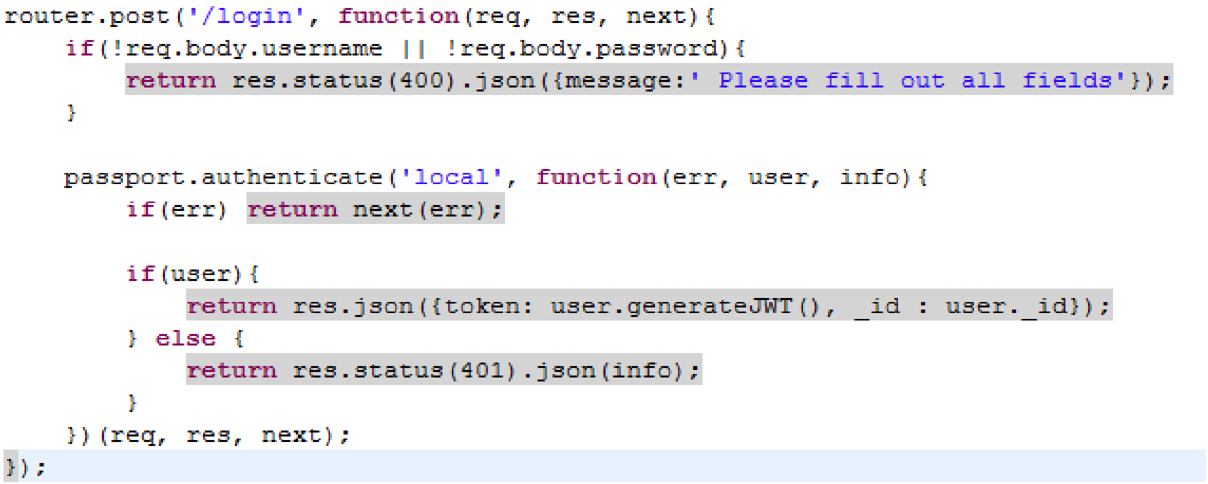


```
router.post('/:userid/posts/newpost', auth, function(req, res, next){
    Post.create({
        title:req.body.title,
        body:req.body.body,
        date: Date.now(),
        userid: req.user
    }, function(err, newpost){
        if(err){
            console.log(err);
            next(err);
        }
        req.user.posts.push(newpost);
        req.user.numberPosts += 1;
        req.user.save(function(err, updatedUser){
            if(err) return next(err);

            res.json(updatedUser);
        });
    });
});
```

<Update Or Insert data with Mongoose on MongoDB >



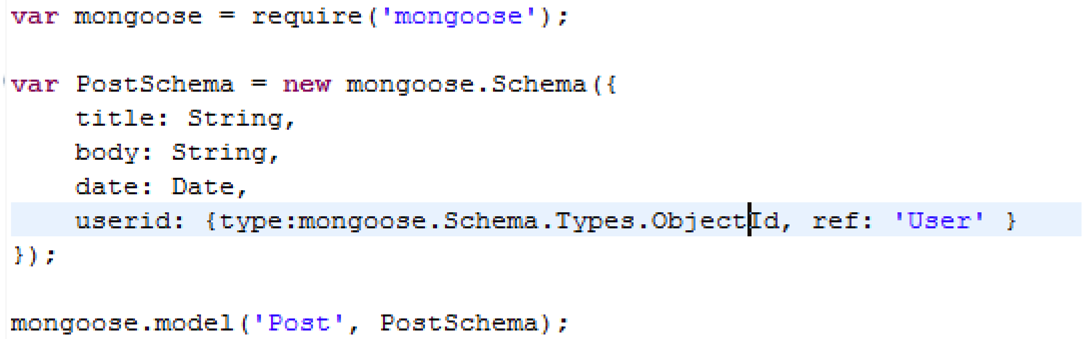
```
var passport = require('passport');
var LocalStrategy = require('passport-local').Strategy;
var mongoose = require('mongoose');
var User = mongoose.model('User');

passport.use(new LocalStrategy(
    function(username, password, done){
        User.findOne({username: username}, function(err, user){
            if(err) return done(err);
            if(!user) return done(null, false, {message: 'Incorrect username.'});

            if(!user.validPassword(password)){
                return done(null, false, {message: 'Incorrect password.' });
            }

            return done(null, user);
        });
    }
));
```



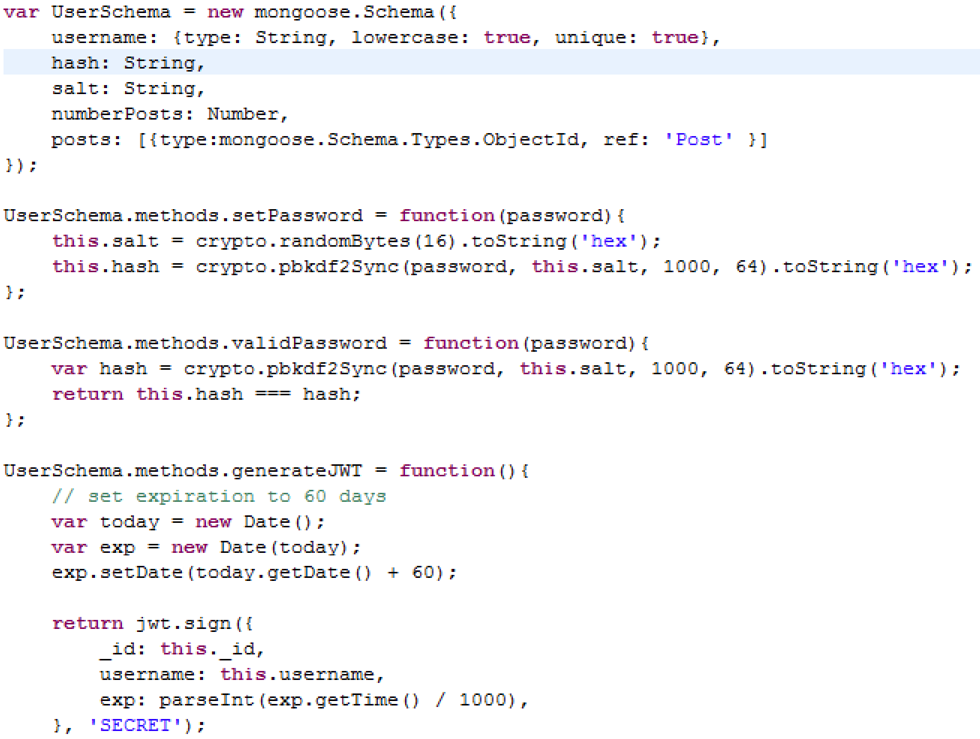
```
router.post('/login', function(req, res, next){
    if(!req.body.username || !req.body.password){
        return res.status(400).json({message:' Please fill out all fields'});
    }

    passport.authenticate('local', function(err, user, info){
        if(err) return next(err);

        if(user){
            return res.json({token: user.generateJWT(), _id : user._id});
        } else {
            return res.status(401).json(info);
        }
    })(req, res, next);
});
```

< Authorization with local-strategy of passport library>

- Define a Mongoose Schema

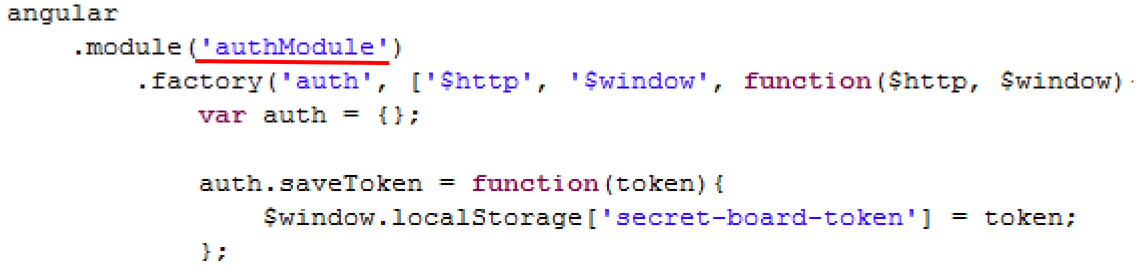


```
var mongoose = require('mongoose');

var PostSchema = new mongoose.Schema({
    title: String,
    body: String,
    date: Date,
    userid: {type:mongoose.Schema.Types.ObjectId, ref: 'User' }
});

mongoose.model('Post', PostSchema);
```



```
var UserSchema = new mongoose.Schema({
    username: {type: String, lowercase: true, unique: true},
    hash: String,
    salt: String,
    numberPosts: Number,
    posts: [{type:mongoose.Schema.Types.ObjectId, ref: 'Post' }]
});

UserSchema.methods.setPassword = function(password){
    this.salt = crypto.randomBytes(16).toString('hex');
    this.hash = crypto.pbkdf2Sync(password, this.salt, 1000, 64).toString('hex');
};

UserSchema.methods.validPassword = function(password){
    var hash = crypto.pbkdf2Sync(password, this.salt, 1000, 64).toString('hex');
    return this.hash === hash;
};

UserSchema.methods.generateJWT = function(){
    // set expiration to 60 days
    var today = new Date();
    var exp = new Date(today);
    exp.setDate(today.getDate() + 60);

    return jwt.sign({
        _id: this._id,
        username: this.username,
        exp: parseInt(exp.getTime() / 1000),
    }, 'SECRET');
```

- Register the frequently used function to service, so can use it with dependency injection

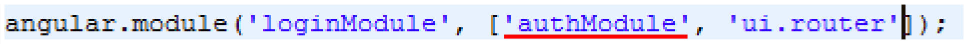


```
angular
    .module('authModule')
        .factory('auth', ['$http', '$window', function($http, $window)
            var auth = {};

            auth.saveToken = function(token){
                $window.localStorage['secret-board-token'] = token;
            };

            auth.getToken = function(){
```

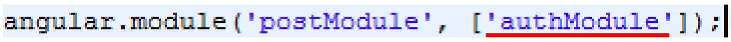
.

.

.



```
angular.module('loginModule', ['authModule', 'ui.router']);
```



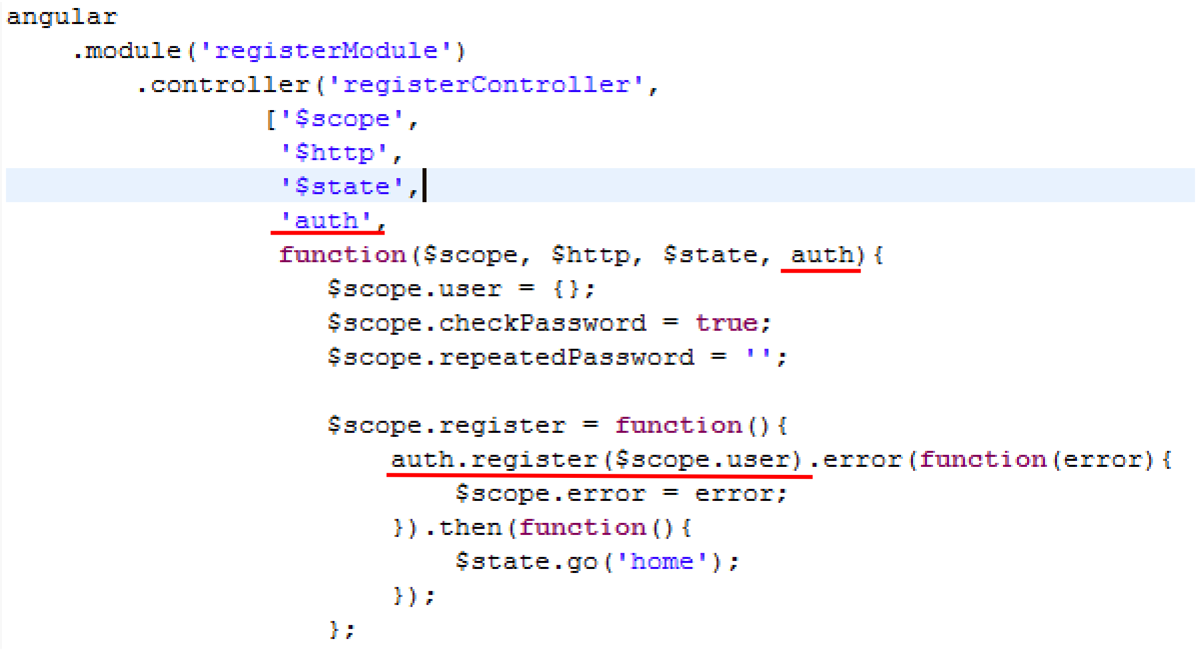
```
angular.module('postModule', ['authModule']);
```

```
angular.module('registerModule', ['authModule']);
```

.

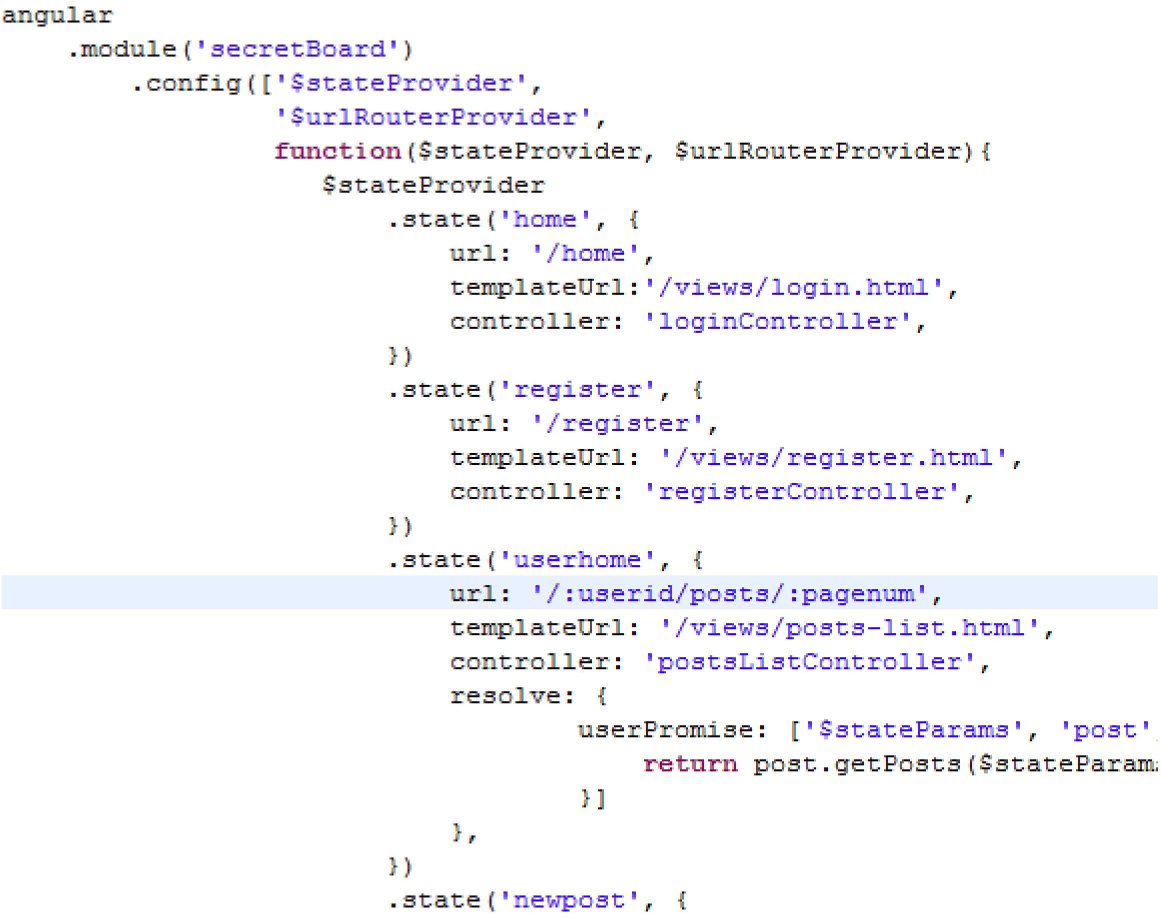
.

.



```
angular
    .module('registerModule')
        .controller('registerController',
                ['$scope',
                 '$http',
                 '$state',
                 'auth',
                 function($scope, $http, $state, auth){
                    $scope.user = {};
                    $scope.checkPassword = true;
                    $scope.repeatedPassword = '';

                    $scope.register = function(){
                        auth.register($scope.user).error(function(error){
                            $scope.error = error;
                        }).then(function(){
                            $state.go('home');
                        });
                    };
```

- Manage all the template in one place($stateprovider service)



```
angular
    .module('secretBoard')
        .config(['$stateProvider',
                 '$urlRouterProvider',
                 function($stateProvider, $urlRouterProvider){
                    $stateProvider
                        .state('home', {
                            url: '/home',
                            templateUrl:'/views/login.html',
                            controller: 'loginController',
                        })
                        .state('register', {
                            url: '/register',
                            templateUrl: '/views/register.html',
                            controller: 'registerController',
                        })
                        .state('userhome', {
                            url: '/:userid/posts/:pagenum',
                            templateUrl: '/views/posts-list.html',
                            controller: 'postsListController',
                            resolve: {
                                    userPromise: ['$stateParams', 'post'
                                        return post.getPosts($stateParam
                                    }]
                            },
                        })
                        .state('newpost', {
```

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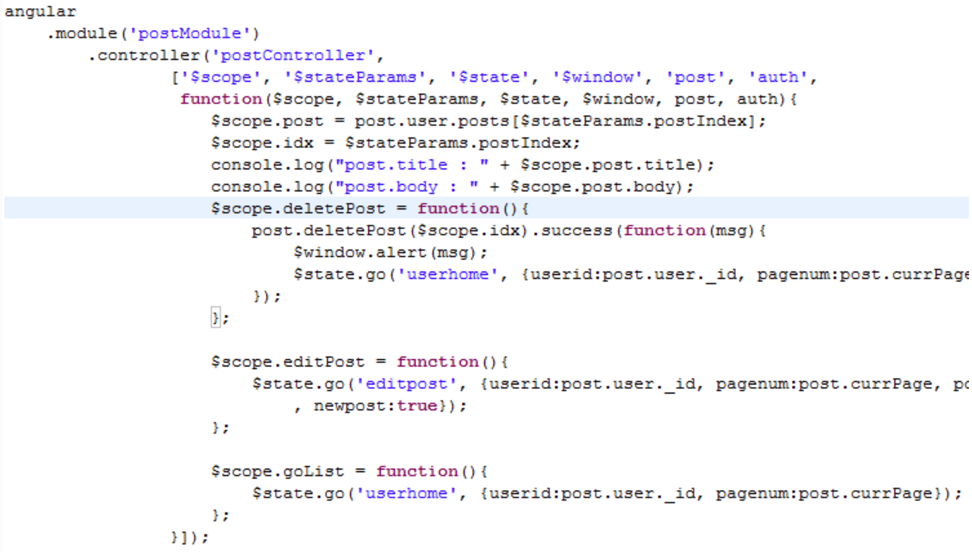
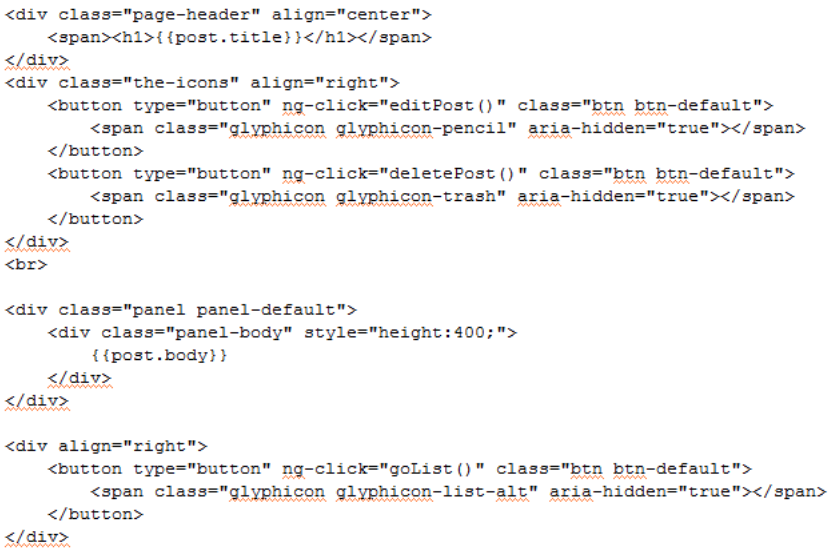
-> each template is connected to the each controller by $stateProvicer service



```
angular
    .module('postModule')
        .controller('postController',
                ['$scope', '$stateParams', '$state', '$window', 'post', 'auth',
                 function($scope, $stateParams, $state, $window, post, auth){
                    $scope.post = post.user.posts[$stateParams.postIndex];
                    $scope.idx = $stateParams.postIndex;
                    console.log("post.title : " + $scope.post.title);
                    console.log("post.body : " + $scope.post.body);
                    $scope.deletePost = function(){
                        post.deletePost($scope.idx).success(function(msg){
                            $window.alert(msg);
                            $state.go('userhome', {userid:post.user._id, pagenum:post.currPage
                        });
                    };

                    $scope.editPost = function(){
                        $state.go('editpost', {userid:post.user._id, pagenum:post.currPage, po
                            , newpost:true});
                    };

                    $scope.goList = function(){
                        $state.go('userhome', {userid:post.user._id, pagenum:post.currPage});
                    };
                }]);
```

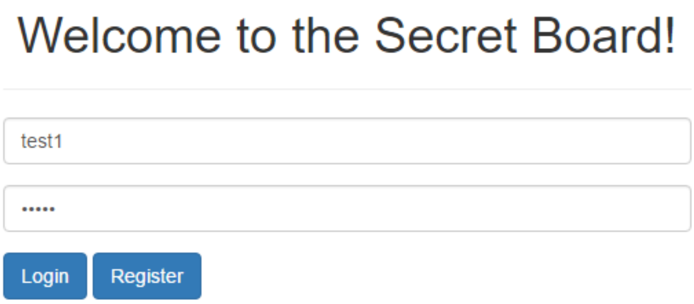


```
<div class="page-header" align="center">
    <span><h1>{{post.title}}</h1></span>
</div>
<div class="the-icons" align="right">
    <button type="button" ng-click="editPost()" class="btn btn-default">
        <span class="glyphicon glyphicon-pencil" aria-hidden="true"></span>
    </button>
    <button type="button" ng-click="deletePost()" class="btn btn-default">
        <span class="glyphicon glyphicon-trash" aria-hidden="true"></span>
    </button>
</div>
<br>

<div class="panel panel-default">
    <div class="panel-body" style="height:400;">
        {{post.body}}
    </div>
</div>

<div align="right">
    <button type="button" ng-click="goList()" class="btn btn-default">
        <span class="glyphicon glyphicon-list-alt" aria-hidden="true"></span>
    </button>
</div>
```

4. Real Face

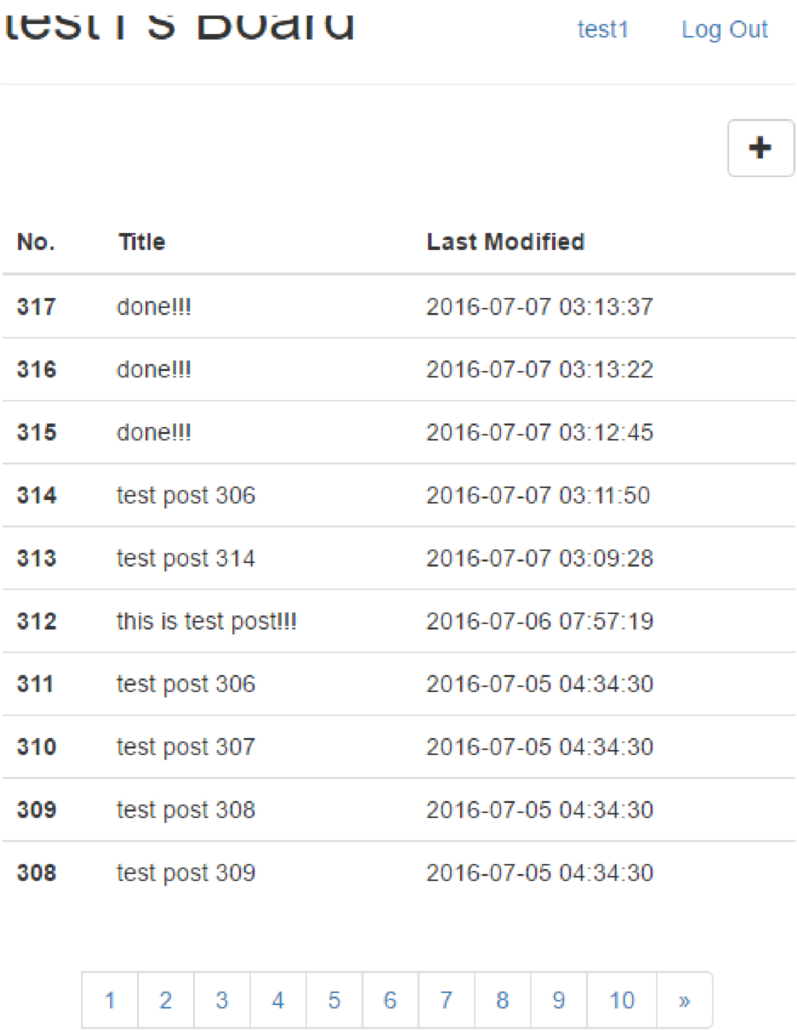


Welcome to the Secret Board!

test1

•••••

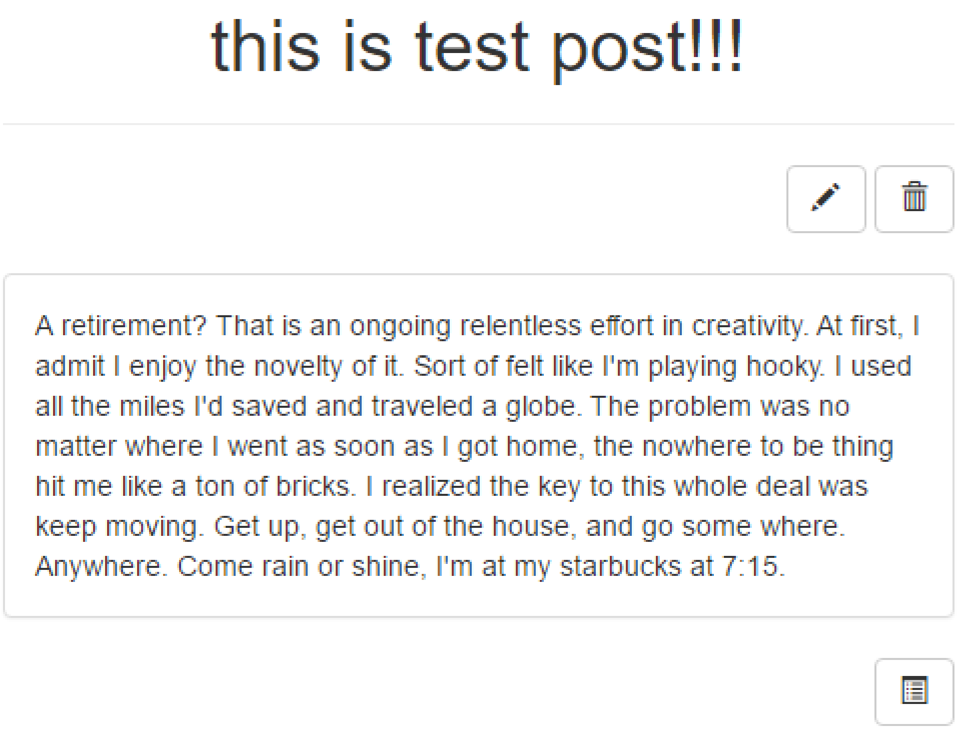
<login>



test1's Board

No.	Title	Last Modified
317	done!!!	2016-07-07 03:13:37
316	done!!!	2016-07-07 03:13:22
315	done!!!	2016-07-07 03:12:45
314	test post 306	2016-07-07 03:11:50
313	test post 314	2016-07-07 03:09:28
312	this is test post!!!	2016-07-06 07:57:19
311	test post 306	2016-07-05 04:34:30
310	test post 307	2016-07-05 04:34:30
309	test post 308	2016-07-05 04:34:30
308	test post 309	2016-07-05 04:34:30

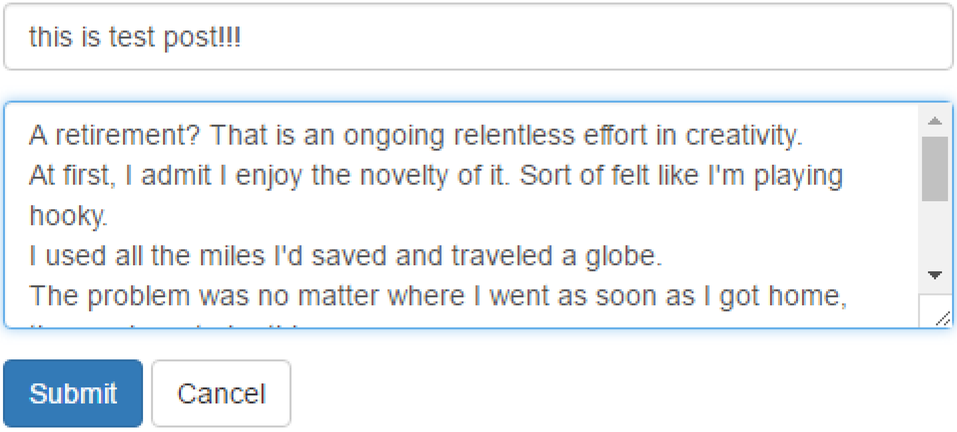
<List of Posts>



this is test post!!!

A retirement? That is an ongoing relentless effort in creativity. At first, I admit I enjoy the novelty of it. Sort of felt like I'm playing hooky. I used all the miles I'd saved and traveled a globe. The problem was no matter where I went as soon as I got home, the nowhere to be thing hit me like a ton of bricks. I realized the key to this whole deal was keep moving. Get up, get out of the house, and go some where. Anywhere. Come rain or shine, I'm at my starbucks at 7:15.

<In Post>



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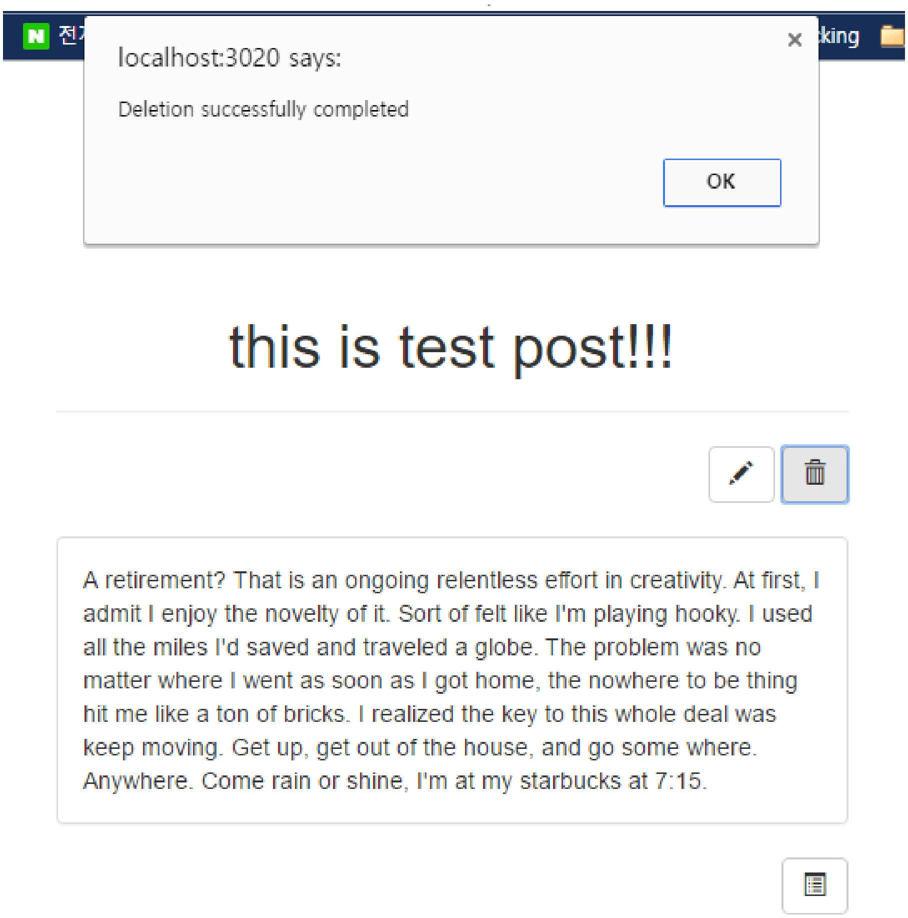
The problem was no matter where I went as soon as I got home,

<Modification page>



localhost:3020 says:

Deletion successfully completed

this is test post!!!

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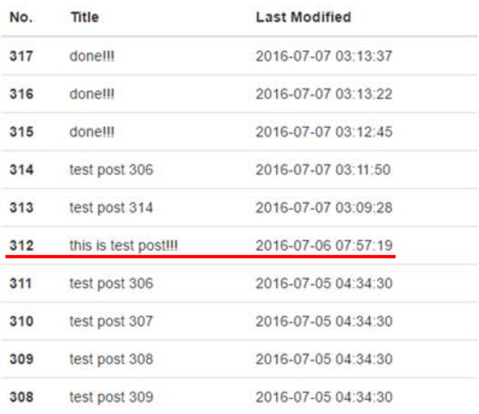
<termination page >



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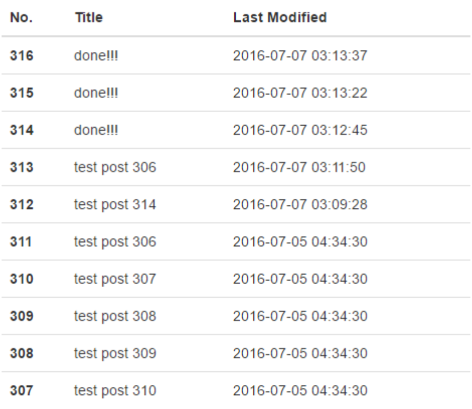

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* the whole code : https://github.com/shharn/mysources/tree/master/Secret-Board/src