## COMP-SCI 5551 Advanced Software Engineering Assignment 6 Solution

I've implemented the Restful services using the AngularJS and MongDB as our application is based on ionic framework. I've used Webstorm as IDE and Node.js to install the required packages and plugins (like restify, mongojs etc...). Please find attached the screenshots of the services implementation.

```
StudentCompanion - [K:\UMKC\Docs\Subjects\5551_ASE\Project\ASE_S16_G7\SourceCode\StudentCompanion] - ...\www.js\client.js - WebStorm 11.0.3
<u>F</u>ile <u>E</u>dit <u>V</u>iew <u>N</u>avigate <u>C</u>ode <u>R</u>efactor R<u>u</u>n <u>T</u>ools VC<u>S</u> <u>W</u>indow <u>H</u>elp
 □ StudentCompanion > □ www > □ js > @ client.js
                                                                                   🔻 📵 server.js × 📵 server.test.js × 🚇 client.test.js × 📵 require.js ×
   Project
                                                         function getOneProduct(id) {
    var id = id ? id : testProduct.id;
         css 🗖 css
                                                        var id = 1d ? 1d : testrroduct.ld;
client.get('/product/' + id, function (err, req, res, product) {
                                                i ionic.png
universeBcakground.jpg
                                                                   console.log("An error occurred >>>>>");
console.log(err);
    cpu: 'Quad Core AMD A8',
                 gpu: 'AMD Radeon R8',
                  id: '123',
                  os: 'Windows 10',
                  gpu: 'AMD Radeon R8' }
```

Fig: Output of the PUT service

```
👺 StudentCompanion - [K:\UMKC\Docs\Subjects\5551_ASE\Project\ASE_S16_G7\SourceCode\StudentCompanion] - ...\www\js\client.js - WebStorm 1
<u>F</u>ile <u>E</u>dit <u>V</u>iew <u>N</u>avigate <u>C</u>ode <u>R</u>efactor R<u>u</u>n <u>T</u>ools VC<u>S</u> <u>W</u>indow <u>H</u>elp
 StudentCompanion > \textstyle www > \textstyle js > @ client.js.
                            😝 🛊 | 🌣 🖟 npanion.properties × 🔞 client.js × 🔞 server.js × 🖟 server.test.js × 🖟 client.test.js ×
1: Project
     ▼ 🗀 www
                                                              var p = product ? product : testProduct;
         css 🗖 css
                                                              p.price = "1000 USD",
                ionic.png
                universeBcakground.jpg
                                                                        console.log("An error occurred >>>>>");
;;
∀
               Product Updated status : { ok: 1,
                  nModified: 1,
                  n: 1,
                  id: '123',
                  name: 'Sri Harsha Chennavajjala',
                  chipset: 'AMD',
                  cpu: 'Quad Core AMD A8',
                  gpu: 'AMD Radeon R8',
                  price: '999 USD' }
```

Fig: Output of UPDATE service

Fig: Output of DELETE service

All the mentioned services will perform the respective tasks on the MongoDB tables. The request and responses will be present in JSON format and will be parsed accordingly.

```
StudentCompanion - [K:\UMKK:\Docs\Subjects\SSSI_ASE\Project\ASE\Sid_GT\SourceCode\StudentCompanion] - \www\js\server.js - WebStorm TI.0.3

Fig. Edit Year Hangate Cost Selector Run Josh W.S. Window Edg

StudentCompanion D - \www. D.J. & \www. Selector Run Josh W.S. Window Edg

StudentCompanion D - \www. D.J. & \www. Selector Run Josh W.S. Window Edg

StudentCompanion D - \www. D.J. & \www. Selector Run Josh W.S. Window Edg

StudentCompanion D - \www. D.J. & \www. Selector Run Josh W.S. Window Edg

StudentCompanion D - \www. D.J. & \www. Selector Run Josh W.S. Window Edg

StudentCompanion D - \www. D.J. & \www. Selector Run Josh W.S. Window Edg

StudentCompanion D - \www. D.J. & \www. Selector Run Josh W.S. Window Edg

StudentCompanion D - \www. D.J. & \www. Selector Run Josh W.S. Window Edg

StudentCompanion D - \www. D.J. & \www. D.J. & \www. Selector Run Josh W.S. Window Edg

StudentCompanion D - \www. D.J. & \www. Selector Run Josh W.S. Window Edg

StudentCompanion D - \www. D.J. & \www. D.J. & \www. Selector D - \www. D.J. & \www. Selector D - \www. Selector
```

Fig: Output of client proxy service provider

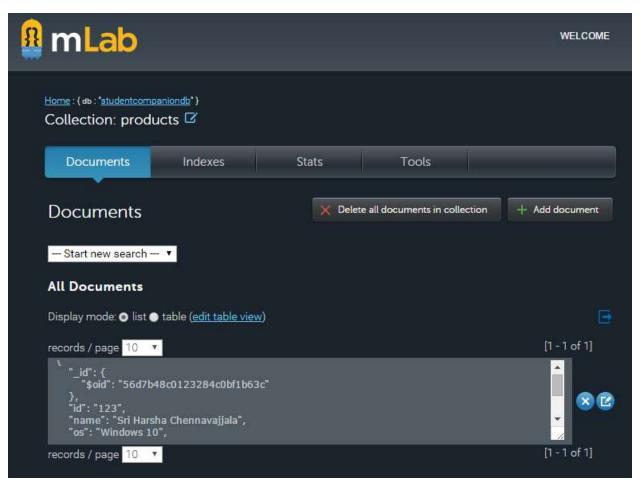


Fig: Screenshot of MongoDB table records update

I've used Karma framework to test my javascript restify services.



Fig: Screenshot of Karma server

Fig: Unit test case 1 for client application logic

```
StudentCompanion | K:\UMKC:Docs\Subjects\SSSI_ASE\Project\ASE_S16_G7\SourceCode\StudentCompanion| - \\www\test\client.test.js \ WebStorm T1.0.3

File Edit New Newgete Code Reference Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run | Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Manual Run Tools VCS_Window Relp

StudentCompanion | www | Test | Window Run Tools VCS_Window Relp

StudentCompanion | www | Window Run Tools VCS_Win
```

Fig: Unit test case 2 for client proxy restify service provider