Team Blue

Career Tracker

Open Source Selection Report

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Table of Contents

Angular

1. Are the open source license terms compatible with my business requirements?

Angular JS uses a MIT license that allows a user to use, copy, and modify the associated code as long as the copyright and permission notices mentioned in the license (reference https://github.com/angular/angular-cli/blob/master/LICENSE) are included. It is available free of charge for commercial and private use. Thus, the license terms are compatible with this project in which Angular is being used to develop a web application for an educational institution.

2. What is the strength of the community?

Angular is an ongoing project housed on Github. There are currently 459 contributors to the project with 5,046 commits as of 11/3/2019. In addition to Github, Angular hosts their own online community (reference https://dev.to/t/angular) where news and user questions are discussed.

3. How well is the product adopted by users?

While Angular faces competition from similar Javascript frontend frameworks, such as React and Vue, it is currently used by millions of developers and development teams (reference https://blog.bitsrc.io/the-state-of-angular-in-2019-b5fb7783a1c6). It is estimated that usage has increased 50% over the last year. That said, some studies have suggested that interest in Angular is somewhat flat as compared to React (reference https://www.peerbits.com/blog/react-vs-angular-which-one-popular-javascript-developers.html).

4. Can I get a warranty or commercial support if I need it?

As per the license agreement, the software is provided "as is" without any warranty. While there is a large community in which support is provided by other users and contributors to the project, commercial support is not available.

5. What quality assurance processes exist?

As with many other Github projects, code changes require a pull request and must be approved after code review by an Angular development team member. There is a significant discussion regarding associated requirements (including required testing) at https://github.com/angular/angular-cli/blob/master/CONTRIBUTING.md.

6. How good is the documentation?

Angular provides comprehensive documentation of its many features at https://angular.io/docs. This includes documentation of directives, code patterns, components, and templates. In addition, there are many examples provided throughout the documentation

7. How easily can the system be customized to my exact requirements?

Angular is a Javascript-based frontend framework that allows extensive customization of the web application. Developers are free to develop functionality using traditional Javascript constructs and use them within the Angular application. That said, the rich feature set of Angular, which includes such functionality as routing, advanced form handling, and property binding, would likely be largely sufficient for many projects.

8. How is this project governed and how easily can I influence the road map?

Angular is a community-driven project where feature requests, bug reports, and even code changes come from individual users that in many cases are not members of Angular's official development team. The road map can be influenced fairly easily by submitting a feature request within the Github project where it will be discussed among community members to determine if there is a consensus for future inclusion in the project. The project is governed by the community itself as well as official members of the Angular development team that must approve code changes that are submitted.

9. Will the product scale to my enterprise's requirements?

Angular is a highly scalable framework that is used by companies such as Microsoft, UPS, AT&T, Apple, Nike, and Google. We have no concerns about its ability to scale for this application.

10. Are there regular security patches?

Updates to address found issues as well as incorporate new functionality are frequent and can be installed easily at the command line using the Node Package Manager (NPM). In addition the current stable release, Angular maintains a separate pre-release version with additional features that may not yet be fully tested and is likely not ideal for a production environment.

NodeCSV

1. Are the open source license terms compatible with my business requirements?

NodeCSV uses a MIT license that allows a user to use, copy, and modify the associated code as long as the copyright and permission notices mentioned in the license (reference https://github.com/adaltas/node-csv/blob/master/LICENSE) are included. It is available free of charge for commercial and private use. Thus, the license terms are compatible with this project in which NodeCSV is being used to parse and construct CSV-formatted files for consumption in a web application for an educational institution.

2. What is the strength of the community?

NodeCSV is a somewhat small project as its scope is limited to parsing and constructing CSV-formatted documents. There are currently 39 contributors to the project with 568 commits as of 11/3/2019.

3. How well is the product adopted by users?

As NodeCSV is a small library used specifically for CSV file processing, there is not much information available as to how widespread its adoption has been. That said, as of 11/3/2019, there have been 238,769 downloads of NodeCSV via NPM (reference https://www.npmjs.com/package/csv).

4. Can I get a warranty or commercial support if I need it?

As per the license agreement, the software is provided "as is" without any warranty. While there is a small community in which support is provided by other users and contributors to the project, commercial support is not available.

5. What quality assurance processes exist?

As with many other Github projects, code changes require a pull request and must be approved after code review by members of the development team. Testing of changes is performed using the Mocha test framework (reference https://csv.js.org/project/contribute/).

6. How good is the documentation?

There is comprehensive documentation including examples available at https://csv.js.org/. The documentation appears more than sufficient to implement the functionality required for this application.

7. How easily can the system be customized to my exact requirements?

The purpose of this library is to parse and construct files in a CSV format. CSV is a standard and there is no need for customization as related to this application.

8. How is this project governed and how easily can I influence the road map?

NodeCSV is a relatively small library developed by a small group of developers; changes to the application must be approved by members of that group. Bug reports and feature requests can be submitted via the project's Github repository.

9. Will the product scale to my enterprise's requirements?

NodeCSV is capable of performing required parsing and construction of CSV files based upon the requirements of the application; the need to scale this functionality does not appear likely at this time.

10. Are there regular security patches?

Updates to address found issues as well as incorporate new functionality are posted several times each year with the last update submitted on 9/20/2019.

MySQL

1. Are the open source license terms compatible with my business requirements?

MySQL is available free of use, provided that the user includes the copyright notice and disclaimer of warranty (reference https://github.com/mysql/mysql-server/blob/8.0/LICENSE). This should be sufficient for the project.

2. What is the strength of the community?

MySQL has a Github page with 72 contributors and 152,906 project commits. It also has an official website where they host their community forums (reference https://forums.mysql.com/).

3. How well is the product adopted by users?

MySQL is the most commonly used relational database management system. Many popular websites, such as Facebook, YouTube, and Twitter, currently use MySQL.

4. Can I get a warranty or commercial support if I need it?

The open source version of MySQL is distributed "as is" without warranty under the terms of the GNU General Public License. A commercial edition can also be obtained from Oracle but should not be needed for this particular application.

5. What quality assurance processes exist?

Changes to MySQL code must be approved through Github. There is also a section on the MySQL community forums for quality assurance questions.

6. How good is the documentation?

Extensive documentation can be found at https://dev.mysql.com/doc/.

7. How easily can the system be customized to my exact requirements?

It's not likely that any customization of MySQL will be needed for this project.

8. How is this project governed and how easily can I influence the road map?

MySQL is currently owned by Oracle. Bugs can be reported on the quality assurance section of their forums or on the issues page of their Github.

9. Will the product scale to my enterprise's requirements?

MySQL is already being used by many, much larger applications so it is likely that it will scale to the requirements of the student database.

10. Are there regular security patches?

MySQL is regularly updated by Oracle, with its latest release submitted on 07/22/2019. Support is not expected to end until April 2026.

Passport

1. **Are the open source license terms compatible with my business requirements?**

Passport has an MIT license and is available free of use, provided that the user includes the copyright notice (reference https://github.com/jaredhanson/passport/blob/master/LICENSE). This should be compatible with the requirements of the project.

2. **What is the strength of the community?**

Passport has a Github page with 31 contributors and 485 project commits. It also has its own official website. Discussion about Passport can be found on the issues section of their Github (reference https://github.com/jaredhanson/passport/issues).

3. **How well is the product adopted by users?**

Passport is one of the most commonly used Node JS libraries for user authentication. There are other solutions available, however the benefits of Passport are that it is lightweight, flexible, and easily integrates into applications.

4. **Can I get a warranty or commercial support if I need it?**

Passport is provided "as is" without warranty. It does not appear that there is a commercial option available for this particular library.

5. **What quality assurance processes exist?**

All changes to Passport's code must be approved by a member of the development team on Github and all new features are expected to have corresponding test cases with complete code coverage. (reference https://github.com/jaredhanson/passport/blob/master/CONTRIBUTING.md)

6. **How good is the documentation?**

Documentation can be found at https://dev.mysql.com/doc/ and examples are listed for a username and password strategy provided by the passport-local module.

7. **How easily can the system be customized to my exact requirements?**

As stated in the previous section, support for a user login system is already provided so no significant customization should be necessary with this library.

8. **How is this project governed and how easily can I influence the road map?**

Passport appears to have been created by a single developer, however it is open source and bug reports can be submitted should any issues arise.

9. Will the product scale to my enterprise's requirements?

There should be no issues with scaling, as there should not be a significantly large number of users for the student database application.

10. Are there regular security patches?

Passport appears to be updated regularly and the latest commit to its Github was submitted on 5/23/2019.

Node Express.js

1. Are the open source license terms compatible with my business requirements?

The license terms are compatible with our project's business requirement because Node JS Express uses the MIT license. The MIT license states: "A short and simple permissive license with conditions only requiring preservation of copyright and license notice". The reference can be found at this URL https://github.com/expressjs/express/blob/HEAD/LICENSE

2. What is the strength of the community?

The community is robust. Being an ongoing project, Express has more than 5000 commits on its GitHub repository. There is a dedicated page that handle everything about the community. It includes regular meetings and these can be found on YouTube https://expressjs.com/en/resources/community.html.

3. How well is the product adopted by users?

Express.js is used by many developers when building web applications using Node.js. This is a framework of choice to deal with HTTP request with the server. There are other frameworks that fulfill similar actions that Express.js, but they are not as popular as Express.js. Some of them include Fastify and Koa.

4. Can I get a warranty or commercial support if I need it?

Express.js is provided without a warranty as stipulated by the license agreement. Provided with the MIT license, it does not offer or provide commercial support.

5. What quality assurance processes exist?

Using the version control system within GitHub, the code changes and additions are reviewed by the development team at Node. Any person may contribute to the project with suggestions on changes and new features, but only approved code by the Node.js development team make it to production. As of November 2019, Express.js has more than 200 active contributors. More information can be found on their repository https://github.com/expressjs/express/blob/master/Contributing.md

6. How good is the documentation?

Express.js provides in depth and thorough documentary at the following URL https://expressjs.com/en/4x/api.html. Included with the documentation is also a step-by-step guide on how to implement the various functions and feature that it provides.

7. How easily can the system be customized to my exact requirements?

Express provides customizable solutions that fit and adapt various scenarios. It is a great fit for this project because, the application will be constantly dealing with the server. Thus the need to manage HTTP request, and Express.js handle it pretty well. It is also scalable, was the application to grow to new limits.

8. How is this project governed and how easily can I influence the road map?

Node Express.js uses GitHub to host its code. Bug fixes and code suggestions are made through this platform. Being an open source framework, anyone can contribute to the code using the contributor link found in the GitHub repository. After careful review by the development team, the changes and fixes are published and updated on GitHub.

9. Will the product scale to my enterprise's requirements?

Node.js Express is a highly scalable framework that is used by companies such as Netflix, LinkedIn, Uber, PayPal, and many more. We have no concerns about its ability to scale for this application.

10. Are there regular security patches?

Updates to address found issues as well as incorporate new functionality are frequent and can be installed easily at the command line using the Node Package Manager (NPM). In addition the current stable release, Angular maintains a separate pre-release version with additional features that may not yet be fully tested and is likely not ideal for a production environment.

Key Personnel Information

William Ntumba – Development Team, Team Leader

Scott Shrout – Development Team

Anthony Freitas – Development Team

Dana Hope – Project Sponsor

Individual Contributions

Scott Shrout

1. Angular
2. NodeCSV

Anthony Freitas

3. MySQL
4. Passport

William Ntumba

5. Node Express.js