**LEVEL 1**

Test management system allows us to see organization of our process more scalable. It opens for us possibility to manage the quality of requested product more clearly.

It resolves challenges, that could be met without it. For example, measuring of progress and productivity with hundreds/thousands of test cases is not grateful work. But with test management system, we can create reports of needed metrics with a help of linked information between test cases, requirements, and defect.

With this, test management resolve two problems by one feature. Possibility of referencing between items, creates more structured and clearer image of how of testing progress well organized and how good our current process going on. How much we cover requirements with our test cases, how many still left, and what actual status of them. This information and even more we can find it test management system. Also, with test management system, we can`t follow, if we have test cases, that refers to the same check(duplicated test cases)

Sharing information across the projects in fast time, it`s such a vital thing in any project. Test management system of course resolve this problem. Project manager can control and assign runs and test for different workers, and keep with progress with additional add-ons, that can help to keep working process more flexible and actual.

And of course, it gave us a repository for our test results from all sources (manual and automated), that we lates can easily storage. And with a bunch of test results, we can create reports from this data, to track how fast, quality of our product gets to it required minimal border.

**LEVEL 2**

In TestRail -> Beetroot project, inside the folder named Maksym Osintsev

**LEVEL 3**

**JIRA**

Jira uses Agile methodologies (such as Scrum and Kanban), offers additional search functionality, allows teams to adjust workflow iterations and add more features while in progress. It offers a comprehensive suite of bug tracking, tracks projects across releases and allows users to customize the software in relation to the organization’s needs and goals.

For instance, you can attach code and other resources directly to a project, which is a handy way to keep a central repository when working on projects. You can also attach Jira directly to Jira-Slack integration.

Graphical user interface, text, application, chat or text message

Description automatically generated

Jira’s free version is good for smaller teams and projects. It allows up to 10 users, has 2 GB of file storage and offers basic roadmap access.

The free version is limited to cloud users only and does not have dedicated customer service.

The Standard plan at $7.50 per month (per user) allows for up to 20,000 users, an audit log to keep track of changes and dedicated support.

The Premium plan at $14.50 a month (per user) adds project automation features, advanced administration insights and unlimited storage

**As long as we have under 10 users and do without the handful of features the Standard plan should be enough, so we could work without overloading budget, for our startup.**

**Azure DevOps**

DevOps can be used by cross-functional teams throughout the entire lifecycle of a software application. It allows teams to view a project from start to finish, along with the connections between various stages and work items, teams can track and view every step in the project from ideation to deployment.

This system good for managing the entire life cycle of a software application development, from ideation to deploymen. Include broad IDE support and provides unlimited private Git hosting, cloud build for continuous integration, agile planning, and release management

It provides tools which help in managing tests, versions of code in Git,  and deploying projects to cross-platform systems.

Graphical user interface, text, application, Teams

Description automatically generated

Basic Plan can be used free for 5 users, and then, $6 per user per month. Plan give a possibility to use Azure services such as Pipelines, Boards, Repos and Artifacts with some limits

**So, possibly $30 for month needed for 10 members**

**Trello**

Trello is a great option for a general-use project management software packages. Intuitive to use and has easy learning curve

In one glance, Trello tells you what's being worked on, who's working on what, and where something is in a process.

Trello’s basic version is free. The basic plan includes unlimited boards, unlimited team members allowed to collaborate on team boards, unlimited cards (or tasks) and unlimited Power-Ups or integrations to a combination of third-party apps and services.

Graphical user interface, application

Description automatically generated

The paid versions allow for businesses to sync data with business software like Slack, GitHub , allowing for Google Workspace sign-on and feature reporting tools to access real-time insights. Prices are per user and billed annually, and increase if chose month payment.

**With Trello, we need possibly spend $5 for owner of board. And then, he will invite guests as workers.**

**System comparison table**

|  | Jira | Azura | Trello |
| --- | --- | --- | --- |
| What for? | Provides an Agile way of software development and collaborates with teams to develop. | Provides a platform for modern services to collaborate better for software development. | Provides a Kanban way of software development and collaborates with teams to develop. |
| Traceability | Is not direct and does not provide visibility on which group is completed. | In the software development lifecycle is possible from one start to another way. | Is not direct and does not provide visibility on which group is completed. |
| Integration | It can easily be integrated with Slack, GitHub, Salesforce, and Google Drive. | It can easily integrate with Git and Visual Studio | It can easily be integrated with Slack, GitHub, Salesforce, and Google Drive. |
| Visual information | It provides Kanban and Scrum boards. | It provides a dashboard in which projects can be managed. | It provides an advanced board & card mechanism for managing tasks. |
| Roadmaps | It has built in roadmaps to tack progress. | It does not have built in roadmaps to tack progress. | With a help of power-ups, can show progress |
| Reports | It has agile reporting which makes teams accessible to dozens of reports and ways of visualizing them | Reports can be created with a help of Power BI and additional analytics extensions provided by Microsoft | It has reporting that makes with a help of power-ups |