



B-PURSE SYSTEM

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Doc Version: 1.0

Table of Contents:

| | |
|-------------------------------|--------------------------|
| Programming method: | 1 |
| Project Documentation: | 2 |

| | |
|------------------------------|----------|
| List of Tables: | 4 |
| List of Abbreviations | 5 |
| Challenges | 6 |

PROGRAMMING METHOD

We use agile methodology

- Agile

Programming Languages:

- Javascript
- Typescript

Design Technology:

- Figma software

Frontend technology:

- Nextjs
- Tailwind Css

Backend technology:

- Nodejs Javascript/Typescript
- Fastify web framework

Database technology:

- PostgreSql

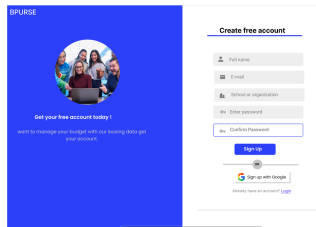
PROJECT DOCUMENTATION

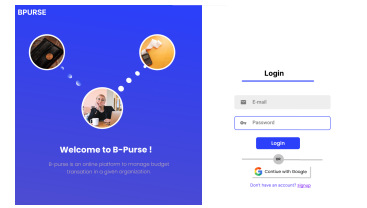
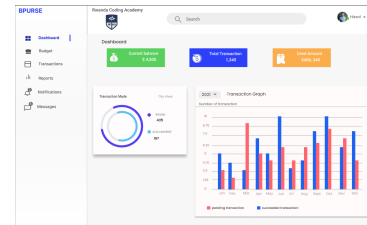
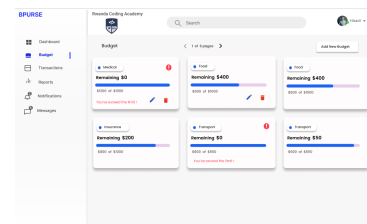
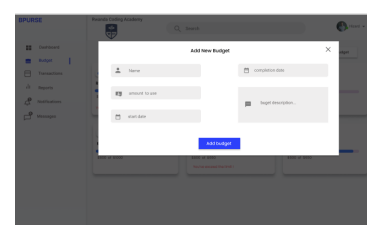
System Documentation

Requirements

| # | User Story title | User story description | Priority | Notes |
|----|------------------------------------|-----------------------------------------------------------------------------------------------------|-------------|--------------------------------------------|
| 1. | System integration | A user wants to log in . | Must have | There has been some research done on this. |
| 2. | Employees registration | A system admin wants to register a new employee | Should have | |
| 3. | View the weekly transaction report | A system admin views the transaction report made throughout the past 7 days including the 7 th one. | Will have | |
| 4. | Create transaction | An employee can register a new transaction made. | Must have | |
| | | | | |

User interaction and design

| Screen | Mock up | Description |
|--------------|-------------------------------------------------------------------------------------|----------------------------|
| Registration |  | Registration of the users. |

| | | |
|-----------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Login |  | A user will need to enter the credentials to proceed on the dashboard |
| Admin Dashboard |  | Admin will view the statistics report. |
| Budget page |  | The system admin will view the outlined budget process. |
| Add budget |  | Adding the new budget. |

Questions

Below is a list of questions to be addressed as a result of this requirements document:

| Question | Outcome | Answered By |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------|
| What about the mobile application | | |
| Are we supporting resetting forgotten passwords ? | As long as the user is not remembering his / her password we can allow him to change it using a token. | S . D |

| | | |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Should we have offline mode ? | <ul style="list-style-type: none"> ● We've talked about the pros and cons. In brief: ★ Seamless experience for customers, they won't notice if there is a connection issue. ★ Most of our competitors don't have this. <ul style="list-style-type: none"> ❖ Could be expensive to build. <p>??? Should we spike this at a later sprint ?</p> | S . D |
| Is the system limited to one school ? | Yes, the initial phase of the system will be applicable to RCA schools . Later we shall allow other schools to create the workspace. | S . D |
| Shall we track the user activity ? | No there's no need to track the user activity. | S . D |
| Shall we allow the permanent deletion of data ? | <p>We can delete permanently the unsensible data but the transaction based data shouldn't be deleted.</p> <p>We shall change their status instead.</p> | S . D |
| How shall we save the user's passwords ? | The user's password will be saved using advanced encryption technology. No decryption allowed. | S . D |
| Shall we notify the admin on the email or the application ? | All the employee's data related to updating or inserting the transaction related information should directly be notified to the | S . D |

| | | |
|-----------------------------------------------------------------------|----------------------------------------|--------------|
| | admin. | |
| Shall we allow the different display of money in various currencies ? | Yes , but later in version 2 to above. | <i>S . D</i> |

Not Doing

- The mobile app is not urgent for now , see above details. -
- The Desktop app is not urgent for now.
- Browser data caching , not now.
- User activity tracking , not now.
- Sms notifications .
- Weekly user activity reports.

Challenges

1. Internet connection :

It's been many days now since we experienced internet connectivity issues in our school and it has really been a big challenge to us because most of us are using online tools for design, project management etc

2. Collaboration:

When working in a team of many people it's always difficult to manage work and commitment of everyone among you to the project, some members delay the submission time and others take forever to do a small task which has really been hard for a project to have a presentable progress.

3. New technologies:

since it's a new project which went through technical analysis, we had to learn new technologies in order to implement the project with the most effective and

best practices. This has really become a challenge to us because we had less time and limited resources.

4. **Time management:** It has become very tough for team members to manage their time, many of us were late for submission, they would always come up with complaints and this made the project delay a little bit.

5. Miscommunication:

When people are working remotely and not like close to one another every time, when you tell a member to do something they would always end up doing different thing or implemented it in a different way and they would always complain that they didn't understand the task very well.

User manual

1. **Managers create budgets for their organisation**

2. **Accountants create transactions**

3. **Managers verify on transactions**

4. **Transactions report generation**

5. Budgets report

List of Abbreviations used

| ABBREVIATION | EXPLANATION |
|--------------|--------------------|
| S.D | Samuel Dushimimana |
| M.K.V | Makuza Verite |
| M.S | Muhodari Sage |
| A.I.M | Aimelyse Moss |
| N.E | Nshimiye Emmy |
| JS | Javascript |
| B.P | B-Purse |
| | |
| | |