



Expense Manager

Gestão de Projeto de software

Instituto Superior de Engenharia Informática



Topics

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- Questions

Introduction





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We see **Expense Manager** as a catalyst for change, helping users **take control** of their **money**, **reducing financial stress** and helping to **create** and **achieve** user **goals**, by having expenses summaries, analyses and tracking, allowing to establish monthly budgets/limits.

Project goals

- Develop a User-Friendly Expense Tracking System
- Categorize, Analyze and Tracking expenses
- Set and Track Objectives



Product

Users Stories

- **[US 1]** As a student, I want to be able to track my daily expenses, so that I can maintain an accurate record of my personal finances.
- [US 2] As a user, I want to manage categories so that I can organize my expenses according to different types.
- [US 3] As a student, I want to access expenses so that I can view all my recorded expenses.
- **(US 4]** As a student, I want to see reports so that I can analyze them.
- **[US 5]** As a user, I want to reserve amounts for future expenses so that I can plan my budget.
- **[US 6]** As a user, I want to set goals so that I can work for a specific objective.
- [US 7] As a user, I want to see the monthly budget so that I can make adjustments as needed.

Users Stories

- [US 8] As a user, I want to extract data from reports in PDF and Excel, so that I can share and analyze my expenses.
- [US 9] As a student, I want to reset the monthly budget, so that I can start a new period of financial control.
- [US 10] As a student, I want to view the transaction history so that I can review my past financial activities.
- [US 11] As a student, I want to view the use of my academic scholarship so that I can keep track of it's usage.
- [US 12] As a user, I want to view expenses by category, so that I can understand in which categories I spend the most money.
- **[US 13]** As a working student, I want to add money to my budget, so that I can keep the budget updated.
- [US 14] As a student, I want to track automatically reserved amounts, so that I can add recurrent expenses and categories

Planning & Delivered

* Sprint O

Goals: Plan the project, create an action plan and present the project to the client.

US: -----

Sprint 1

Goals: User Interface, create the simplest methods for tracking and managing expenses, monthly budget and adding and categorize expenses.

US: 1, 2, 7, 10, 13

* Sprint 2

Goals: Monthly budget reseting, entry display, transaction history, allow goal setting, amount reservation and manage scholarship.

US: 3, 5, 6, 7, 9, 11, 12, 13

* Sprint 3

Goals: Add recurrent expenses, notifications for goals or low funds, do all corrections needed

US: 1, 4, 6, 7, 10, 11, 13, 14





Release 1

Goals:

- Track, Categorize and Analise expenses;
- Expense Summary;



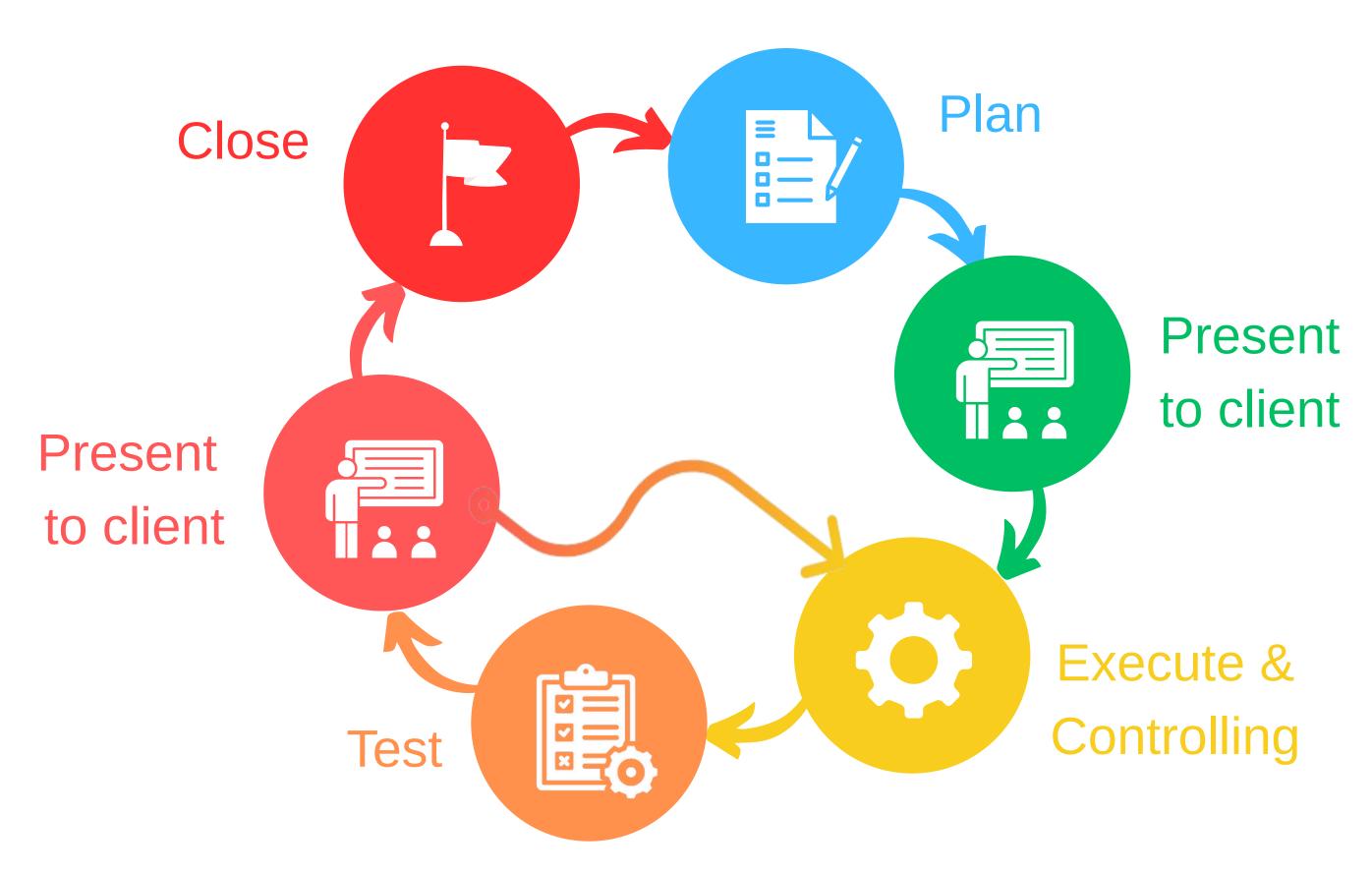
Release 2

Goals:

 Have a functional app with the missing features (Notifications).

Project <u>Management</u>

Project Lifecycle



Budget & Effort

Sprint 1

Budget: 38 hrs 30 min

Spent: 35 hrs 50 min

Sprint 2

Budget: 37 hrs 40 min

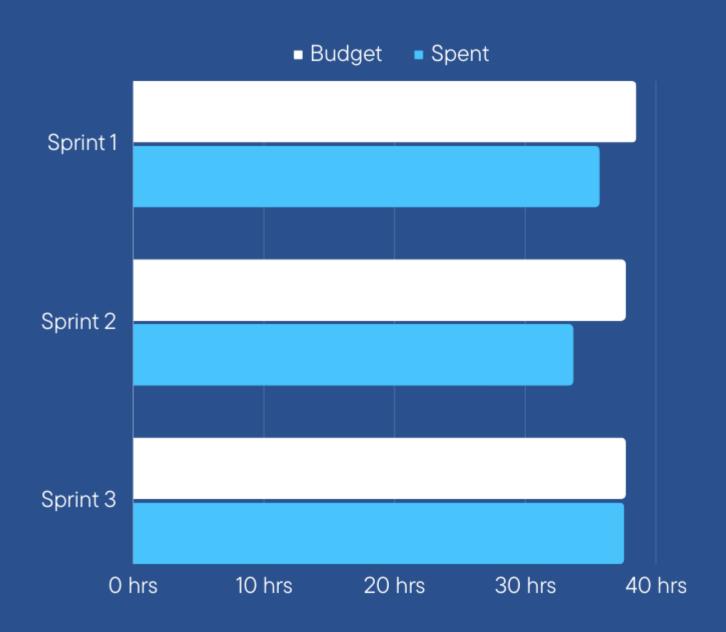
Spent: 33 hrs 40 min

Sprint 3

Budget: 37 hrs 40 min

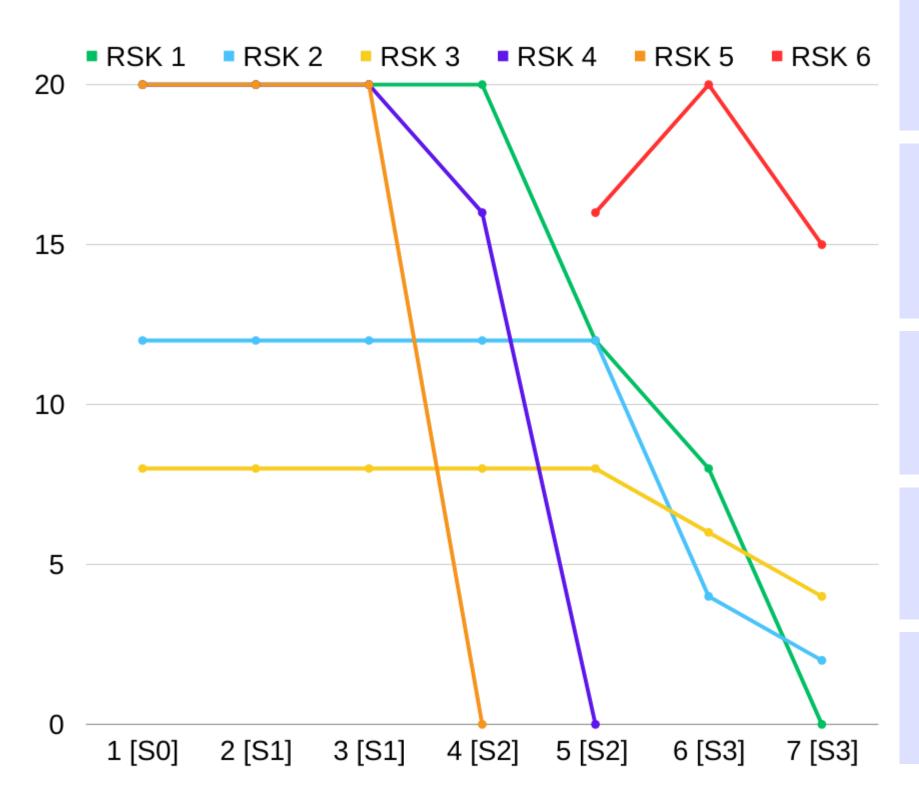
Spent: 37 hrs 35 min

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Risk Plan

Evolution



[RSK 1] The team doesn't have any experience in this type of project, this can lead to delays in goals due to poorly calculated time estimates or communication failures.

[RSK 2] There are constant simultaneous changes to the project, this can cause conflicts, complications, or delays on the project.

[RSK 3] Considering that the group members are not professionals in this area, they may write code that uses excessive resources and encounter more bugs. This will force us to spend more time than necessary, leading to possible delays.

[RSK 4] The group's members are inexperienced in security and privacy. As we intend to work with sensitive information, we have a high risk of data or privacy breaches, which could jeopardize the fidelity of our software.

[RSK 5] We have a limited amount of time, so we might not be able to finish all the features that we promised.

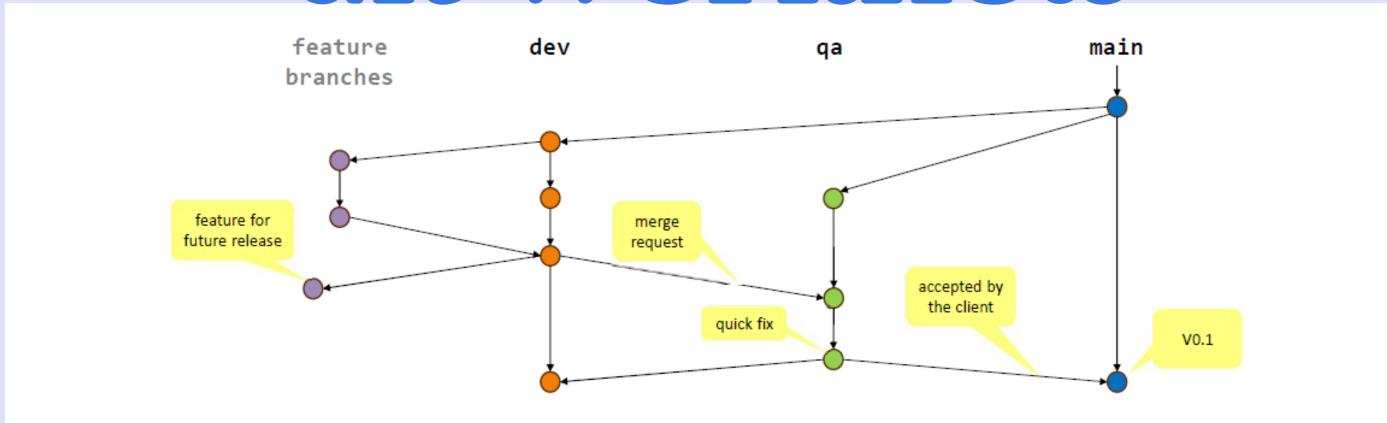
[RSK 6] Misunderstandings between the team and the client's expectations, might lead to project delays, compromised client satisfaction.

Quality

	Unit Test	Integration Test	Acceptance Criteria	Comments	
Sprint 1	Done	Done	Done		
Sprint 2	Done	Done	Not well done	All required testing phases were completed, including unit tests, integration tests, and acceptance tests, contributing to the overall quality assurance of the system.	
Sprint 3	Done	Done	Done		

Devos

Git Workflow



CI/CD pipeline

Status	Pipeline	Created by	Stages
▼ Passed ③ 00:02:13 ➡ 1 day ago	Merge branch 'dev' into qa #1108724345 ♀ qa ❖ d08e68dd ⊕ latest		O - O



Global analysis &

Conclusions

Global analysis

- √ 90% of user stories were completed as desired
- ✓ Sprint objectives fulfilled, not always in line with the client's vision
- ✓ Release objectives fulfilled
- ✓ Project objective fulfilled
- ✓ Risks were reduced

Conclusions

- ✓ Initially, we felt a bit disoriented, but eventually, we **established a solid** work balance by leveraging the strengths of each team member.
- ✓ Effective communication.
- ✓ There was always someone accessible to help.
- ✓ Good workflow.
- ✓ It took some time to grasp the client's expectations, **persistent** communication ultimately enabled us to accurately capture and reproduce his vision.

Lessons learned

Never assume what the client wishes

Constantly check with the client

Show all the mockups to the client and wait for him to approve

Rushing through acceptance testing can result in the oversight of potential bugs or issues.

It is crucial to prioritize specific features.

Individual analysis

Ana Sofia

Main individual contributions:

Documentation (ReadMe maintenance)

Participation on team results:

- Acceptance Criteria (Creation and verification)
- Participation on weekly meetings
- Documentation maintenance

- Great communication
- Continuous meetings
- Available members
- Great team-work spirit

Artur Yurchuk

Main individual contributions:

- Transaction history (UI, filters and logic)
- Add expenses and entries (Logic)
- Statistics (Logic and verifications)
- Add envelopes and categories (Logic and checks)

Participation on team results:

- Goals (Envelope automatic distribution)
- Automatic distribution
- Home page maintenance
- Documentation maintenance
- Hold weekly meetings

- At first a little lost coding but then a good balance
- Good communication
- Every week of meetings
- Some members always available
- Good work-flow

Francisco Costa

Main individual contributions:

- Transaction history (Setup)
- Database (Logic & Management)
- Budget features (UI, methods)

Participation on team results:

- Database & History management
- Documentation maintenance
- Hold weekly meetings

- Initially slow and confused but with time learned to adapt and work together
- Good communication
- Weekly of meetings
- Members always available
- Members always happy to help
- Good work-flow

Joana Ferrão

Main individual contributions:

- Goals (Setup & maintenance)
- Envelope automatic distribution
- Notifications (Setup & maintenance)
- Automatic actions (money distribution, payments, etc)

Participation on team results:

- Envelopes (Reoccurring expenses & Automatic distribution)
- Home page maintenance
- Pop-up setup
- Documentation maintenance

- Great balance of skills
- Very good communication
- Continuous meetings
- Available members
- Good work-flow
- Team-work spirit

Lara Bizarro

Main individual contributions:

- User Interface (Creation & maintenance)
- Homepage (Setup)
- Documentation (Creation & maintenance)
- Acceptance Criteria
- Gitlab (maintenance)

Participation on team results:

- Kept GitLab updated
- UI maintenance
- Hold weekly meetings
- Monthly reset setup
- Documentation maintenance
- Most of acceptance criteria

- Great balance of skills
- Effective communication
- Managed to find balance
- Some members always available to help
- Regular check-ins

Questions