SEBA Master - Web Application Engineering

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Assignment 1

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Budgetly is an expense tracking web app to help private customers with many monthly transactions or critical budgets to keep track of their finances with automated bank transaction analysis, customizable budget categories, and special attention to data security.

Business Model Canvas

Key partners
What are your key partners to get competitive advantage?

BankingAPI Provider like FinAPI

Auth and Secret Provider like Auth0

Banks

Key activities
What are the key steps to move ahead to your customers?

Analyses of customers financial transactions

Maintenance and feature development of our application and data security

Key resources
What resources do you need to make your idea work?

BankingAPI

Auth and Secret Service

Financial resources

Human resources

Computational Resources

Key propositions
How will you make your customers' life happier?

Automatic Expense categorisation

Easy Budgeting

Transaction Anomaly detection

Cost forecasting

Overview across all banking accounts

Fully customisable expense categories

Modern UI with focus on UX

Customer relationships
How often will you interact with your customers?

In-App Customer Service

In-App Feedback and Feature requests

Engagement and Tips via Notifications and E-Mail

Channels
How are you going to reach your customers?

Our web-based product

E-Mail

Social media and influencer marketing

Internet banner ads

Customer segments
Who are your customers? Describe your target audience in a couple of words.

Private customers

Self-employed customers

Customers with many monthly transactions

Students and customers with critical budgets

Cost Structure
How much are you planning to spend on the product development and marketing for a certain period?

Monthly fees for APIs (FinAPI & Auth0)

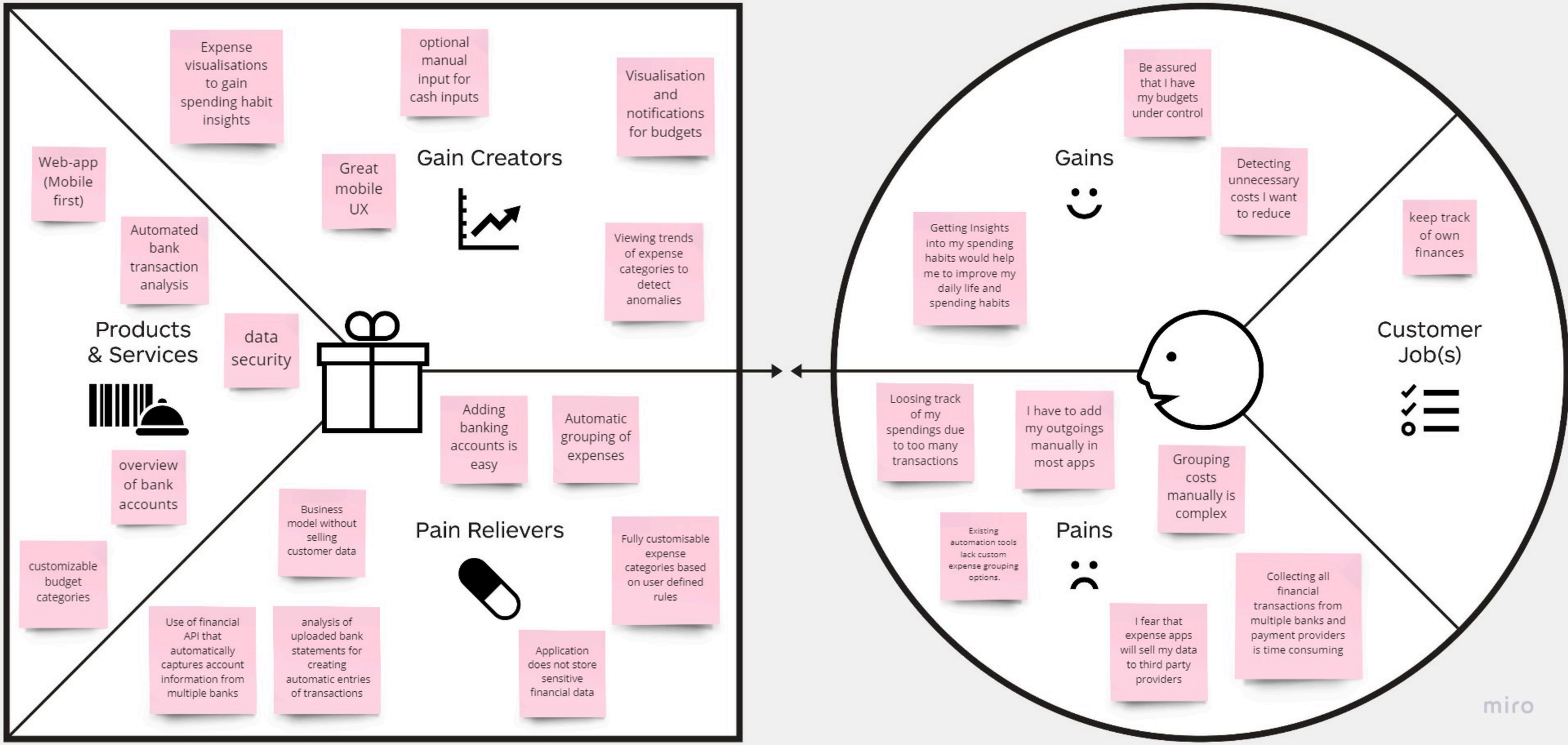
Computation costs (Cloud Provider)

Company Fix costs

Revenue Streams
How much are you planning to earn in a certain period? Compare your costs and revenues.

Paid Service / Monthly fee

Value Proposition Canvas



Project Idea and Business Model

The following sections explain the components of the Business Model Canvas in more detail.

I. Customer Segments

In everyday life, private customers have different expenses and incomes. Manually keeping track of these transactions is cumbersome. That is why we aim to facilitate the lives of private customers and self-employed customers who cannot use corporate tools but need to handle complex transaction profiles. By demanding monthly fees instead of selling sensitive user data, we address customers who care about their data's security but are not addressed in many existing solutions. In addition, our target group includes students and customers with critical budgets who can benefit from clear visualizations of individual categories enabling them to keep their limits meticulously.

II. Value Proposition

Our product helps customers to monitor and control their private expenses by automatically categorizing and monitoring them. Customer segments with critical budgets like students can set budget alarms to not over-run their monthly budgets. Further, Customer segments with many monthly transactions often lose track of their expenses. With our software, they can gain insights into their cost structure, allowing them to reduce costs by identifying unaware costs or detecting anomalies like increased subscription fees.
Our solution gets the expense tracking of our customers done automatically. It helps to reduce their monthly costs and is highly customizable to their spending habits.

III. Customer Relationships

Interaction with the customer will take place via In-App customer service. As a result, a customer will always be able to leave feedback and propose possible features directly in the app. In addition, the app will send notifications with tips or alarms if limits are exceeded or unusual expenses are detected to increase user engagement.

IV. Channels

We will reach our customers by E-Mail and by messages sent directly in our web application. In addition, new users will be acquired mainly through social media marketing. Influencer marketing seems to be very effective in getting as many leads as possible. Therefore, we will select influencers with a matching target audience. Additionally, we are planning to utilize Google Ads for internet marketing.

V. Key Activities

One of the key activities for our Business is the feature development of our application to keep up to date and to offer customers new features. Furthermore, the

maintenance of the already existing web application is essential. This includes the reaction to bug reports. Last but not least, the key activity of our application is to analyze customers' financial transactions and show that in a structured way with modifiable automatic sort in the correct payment category like food or fuel.

VI. Key Resources

To make our idea work, we have to consume key resources that could be categorized into four parts.

The first category is human resources. As our main product is a web application, we require human resources with a middle to high level of expertise in two areas. First, to build the web application, we need an IT team responsible for the development of the app as well as its maintenance and feature development. Second, we need a marketing team that focuses on campaign management and customer relationship management.

The second category of key resources would be physical resources. The most crucial resource would be computing resources to host our application, like our webserver and database. Additionally, everyone working on the project should be equipped with personal computers that enable their participation in the workflow and permit local development.

The third category would be intellectual resources. Our web application mainly relies on and combines external intellectual resources from two parties.

Firstly, to analyze and visualize the personal finance of our users, we need access to their bank transactions. Therefore, we propose two possible solutions for this purpose.

- In the first option, we use an external banking API, such as finAPI, enabling access to non-sensitive information regarding bank transactions from several banks with users' authorization. In this case, the banking API is identified as our key resource.
- As the second option, we plan to extend an open-source PDF analyzer that currently analyzes investment reports in PDF format. If our customers upload their bank statements at the end of the month, we will be able to analyze their transactions with this PDF analyzer without an external banking API. Hence, the source code of the PDF analyzer is also a key resource.

Secondly, since our project pays special attention to data security, we would use an authentication provider, such as Auth0, which takes care of the identity management of our customers. As such, the authentication API is also a key resource.

The last category of key resources is the financial resources, including a starting capital that covers the development costs, the computation cost, and the monthly fees that we have to pay per user for using the APIs mentioned above.

VII. Key Partners

We can identify three key partners for our project. The first key partner is the banking API provider, which provides us with access to the banking transactions of our users.

The second key partner is the authentication provider. Finally, the third group of key partners would be banks, who provide their customers with bank statements in PDF formats to download and then upload again to our app for analysis purposes.

VIII. Cost Structure

Since we build a purely software-based solution hosted in the cloud with external providers used for the user management and the banking API, our business model can scale easily and aims for a lean cost structure. Our variable costs consist of fees paid to our external providers based on the number of users or API requests. Those costs strongly correlate with the number of users and are, together with our cloud costs, the foundation of our monthly subscription prices.
After the initial development, we have low fixed costs since we only need to provide support and maintenance. Also, our computing costs are associated with our variable costs since they strongly correlate with the number of users (serverless architecture)

IX. Revenue Streams

As our product follows a freemium business model, the base functionality of our application is for free and does not generate directly attributable revenue. Our premium subscription plan with feature-dependent pricing like automatic real-time transaction processing creates revenue. But, since privacy is a crucial part of our USP and corporate identity, we do not use potential revenue streams based on selling our user's financial data. Therefore, the subscription fees are currently the primary revenue stream and will be paid monthly or as discounted yearly packages via our payment gateways, Stripe and PayPal, covering all primary payment methods.
If the number of free users exceeds the paid plans by a factor of 30 or larger, we may need to introduce advertising for partners like banks on our web app to cover the user account fees for the free users.
Aside from our product, currently, users mainly pay indirectly with their data (Finanzguru) or pay fixed prices for software licenses (MoneyMoney). Presumably, the largest customer group will be the one that currently tracks their expenses manually or not at all. Their willingness to pay should be high since they spend a lot of time tracking expenses manually and could gain insights through our product on how to reduce monthly costs.

Mapping to Business Model Categories

The business model of our project would be the so-called "Freemium" model, which is a combination of free content and the subscription model. To cover the costs incurred by connecting our application to the necessary APIs, which require monthly payments, we decided to combine the Freemium model with the advertising model.

The free content in our business model is accessible to every user who registers herself in the web application. As a free user, the customer would have the possibility to manually create entries of incomes and expenses or upload their bank statements as PDF in the web application, which are automatically scanned to generate database entries for each transaction. The app will create an overview and analysis of the user's finances based on the stored transactions. Obviously, concerning data input, the level of automation for free users is quite limited. However, with free access, the users familiarize themselves with the app and learn how it would make their lives even more convenient when upgrading to the paid plan.

The variable costs incurred by the free users mainly originate from the cost of our authentication provider. As already mentioned above, we plan to use an external authentication provider to manage our users' personal information. Therefore, our business plan would cover the costs of the free users by a fraction of the subscription fee paid by the premium users and the revenue generated by the advertisement for partners inside our application.

Suppose the users want to fully automate the input of transaction details or monitor recent transactions instead of getting an overview of their financial report at the end of each month. In that case, they are welcome to upgrade to our premium subscription. After paying the fee, the users will no longer have to enter or upload any bank statements manually. Instead, their account would be connected to the banking API, which automatically pulls transaction details from their bank accounts. The users have to pay a subscription fee every month, irrespective of their actual usage rates. We decided to use the subscription model because we also have to pay a monthly subscription fee to the banking APIs for the premium users.