**Progress Report**

**- Increment 1 -**

**Budget Baller**

# Team Members

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1. **Project Title and Description**

Budget Baller takes a user’s transaction data-- the purchases they make on debit cards, debt accrued on credit cards, etc.-- and logs it in a database. It will then process this data and give users an accurate account of their financial habits with additional statistical analysis; for example, Budget Baller would tell a user how much money they have spent on groceries, eating out, or other purchasing categories, how much of their income they regularly save, and average and net changes in balance on weekly, monthly, and yearly timeframes. The app would then go a step further and help users create budgets and set goals, and keep them accountable to staying in budget and making progress. Hopefully, users will experience a sense of self organization and have a more hands on approach with their money, by checking their accounts, making goals, and learning how to save their money. The app will be developed for Android, however, our database can be accessed from any device.

1. **Accomplishments and overall project status during this increment**

Our accomplishments during this iteration have mostly been organizational in nature. In terms of actual code produced, we have been able to produce a skeleton of Android activities to be filled out with functionality as development continues. We have also been exploring the Plaid API and investigating how a user would go about logging in and retrieving their transaction data in such a way that it can be passed to another module for analysis. We have finalized our decision to construct the product as a mobile application using Android studio, and thus we have created our class diagrams to reflect Android activities.

In relation to our initially proposed functionality, our project remains stable and aims to achieve the requirements necessary to produce the minimum viable product. They are as follows:

* an Android web view that launches Plaid and prompts users to log into their different bank accounts to retrieve the transaction data
* a data analysis module that takes in the transaction data as input and outputs three main pieces of information: purchases organized by category; statistics such as total available balance, total debt, total savings, and total and average spending and income; and information sufficient to produce graphs of spending, saving, and income over time
* a user interface module that takes in the processed information and uses it to produce charts and graphs that visualize the data. The user can then interact with these graphs and view the information they desire to see, as well as having the option to set financial goals

1. **Challenges, changes in the plan and scope of the project and things that went wrong during this increment**

So far everything has been pretty smooth sailing and nothing has really gone drastically wrong. However, this is because the implementation is currently still very bare bones and not much coding has begun yet; this is where problems are most likely to arise, especially when getting modules to communicate. Our team has been working very well so far: communication is good, we have been regularly meeting and are all on the same page in terms of development, and we have solid plans for where we will be headed for the next increment. The biggest challenge so far has been figuring out how the requirements will translate to actual code; we have outlined a series of Android activities with functionality mapping to requirements, but that organizational structure is very likely to change as implementation continues. We also are having difficulties trying to figure out how to incorporate the Plaid API within our own app. It’s some pretty high level stuff. Also, we need to learn how to add a database into our app that will store user information. In terms of our initial plan, nothing has changed except for the fact that we are focusing primarily on the functional requirements to get the minimum viable product working.

1. **Team Member Contribution for this increment**
   1. *the* ***progress report****, including the sections they wrote or contributed to*

Ismael Fernandez - prepared and shared document with group, discussed plans and implementation with group and populated progress report with text.

Brandon Whyte - Added on to Team Member Contribution, and challenges, and Project Title and description.

* 1. *the* ***requirements and design document****, including the sections they wrote or contributed to*

Ismael Fernandez - prepared and shared document with group, filled out overview and functional requirements

Brandon Whyte - edited the photo for use case and class diagrams. Added information to class diagram and case diagram.

Marshall Richardson - filled out non-functional requirements

* 1. *the* ***implementation and testing document****, including the sections they wrote or contributed to*

Ismael Fernandez - prepared and shared document with group, filled it out

Brandon Whyte - Added to programming languages and Platforms, APIs, Databases, and other technologies used.

* 1. *the* ***source code*** *(be detailed about* ***which*** *parts of the system each team member contributed to and* ***how****)*

Brandon Whyte - wrote the main app implementation of Budget Baller, as well as logo design

Scott Early - research into Plaid Api. Tested plaid implementation and retrieving bank account data.

Marshall Richardson - research into Plaid Api. Focused on how to fetch info about the users bank information, and implement it into the app. Also did extensive research on the Plaid Api.

* 1. *the* ***video or presentation***

Filmed by Ismael Fernandez. Presented by Scott Early, Marshall Richardson, Ismael Fernandez, and Brandon Whyte.

1. **Plans for the next increment**

For the next increment we plan to continue development of the Android activity skeleton we currently have, finalize the transaction data retrieval from the Plaid API, decide on how the transaction information will be processed and stored (whether relying on Plaid or with an internal database) taking into account both performance and security, and begin development on the data analysis module.

1. **Link to video**

<https://drive.google.com/file/d/10LglFKfw8mT2eVdXbqrW_4u1RDhq_pcK/view?usp=sharing>

<https://drive.google.com/file/d/1C0en1cmZWegH5a2qjzA0QWw1gxu1u7MH/view?usp=sharing>

\*The first video cut off since my phone ran out of storage, so it is split into two