**HSBC Fund Rebalancing Project**

Terms of Reference

4/1/2019  
Version 1.1

**Team REST**

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## **Revision History**

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| --- | --- | --- | --- |
| **Version** | **Date** | **Name** | **Description of Change** |
| 1.1 | 4/1/2019 | Team REST | Final version - Update project scope, estimated schedule and document format according to Jan’s feedback |
| 1.0 | 1/9/2019 | Team REST | Initial draft |

## **Project Information**

### **Business Problem**

In order to achieve the goal of helping clients manage micro investment needs without them going to a branch, HSBC launched the HSBC RoboAdvisor product. Part of the product is a rebalancing service, which helps customers track and manage their mix of funds in their portfolio. HSBC is looking for the next evolution of the RoboAdvisor product and puts great focus on the advancement of its rebalancing service.

### **Project Objective**

To develop an API service to help facilitate client portfolio fund rebalancing.

### **Project Scope**

In Scope - The API service will provide the following features:

* Collect and retrieve the asset mix preference of a customer's portfolio
* Set asset mix preference for a given portfolio id
* Set the allowed deviation percentage for a portfolio
* Retrieve and apply a list of recommended transactions to rebalance the portfolio
* Modify the list of recommended transactions

Out of Scope:

* Customer database will be set up and administered by the client.
* HSBC will provide mock system for us to test.
* HSBC will provide API for us to utilize for building our API

## **Project Approach**

### **Anticipated Effort and Cost**

For the following items, we have concluded that there will not be any associated development or ongoing costs associated with the identified items.

|  |  |
| --- | --- |
| **Cost Item** | **Effort** |
| Software development | Up to 800 hours |
| Industry stakeholder consultation | Up to 6 hours |
| TA consultation | Up to 18 hours |

**Estimated Schedule**

|  |  |  |
| --- | --- | --- |
| **Week** | **Deliverables** | **Due Date** |
| **1** |  |  |
| **2** | Terms of Reference | Thurs, Jan 10 |
| **3** | Draft Project Plan | Tues, Jan 15 |
| **4** | Requirements Document | Thurs, Jan 24 |
| **5** | Design Document | Fri, Feb 1 |
| **6** |  |  |
| **7** | Project Status (finalized key documents) | Tues, Feb 12 |
| **8** |  |  |
| **9** |  |  |
| **10** | Preview Site |  |
| **11** | Test Plan | Thurs, Mar 14 |
| **12** |  |  |
| **13** | System Delivery and Post-Implementation Review | Thurs, Apr 4 |

**Known Risks**

|  |  |  |
| --- | --- | --- |
| **Risk ID** | **Risk Description** | **Severity** |
| 1 | Change in API requirements/scope creep | High |
| 2 | Google Cloud Platform (GCP) goes down | High |
| 3 | The mock system may not respond to our calls or return invalid data | Medium |
| 4 | Inability to handle requests at peak hours may lead to slow response times | Medium |
| 5 | Insufficient data to thoroughly test all endpoints including stretch goals | Medium |
| 6 | Google Cloud Platform (GCP) token not provided by HSBC may need a fallback platform | Low |

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### **Mitigation Strategies**

|  |  |
| --- | --- |
| **Risk ID** | **Risk Mitigation** |
| 1 | Discuss with HSBC stakeholders to ensure requirements are set |
| 2 | Email Google contacts for assistance |
| 3 | We have a direct line of contact with the mock system provider, HSBC, to quickly get this risk resolved |
| 4 | Discuss how much load to expect and potentially implement an API rate limiter |
| 5 | Contact business stakeholder to ensure the proper data is provided or if we should generate our own test data |
| 6 | Contact business stakeholder for GCP token or look into Microsoft Azure / AWS |

### **Key Artifacts**

* **Initiation:** Terms of Reference
* **Requirements:** Function & Technical References
* **Design:** Internal & External Design
* **Coding:** Story Points, Definition of Done, Code Documentation
* **Testing:** Risk-Based Test Plan
* **Release:** Acceptance Document
* **Maintenance:** Post Implementation Review

## **Project Governance**

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### **Team Structure**

During each phase of the Software Development Life Cycle, two students will take leadership roles to lead the team. The selection of team lead is based on students’ past experiences in the designated fields as well as self-interest.

### **Team Responsibilities**

|  |  |  |
| --- | --- | --- |
| **Project Role** | **Risk Description** | **Severity** |
| Requirement Lead | Aurora Qiu, Tanya Tan | i3c0b@ugrad.cs.ubc.ca  i0z9a@ugrad.cs.ubc.ca |
| Design Lead | Leo Li, Stanley Ye | i2e0b@ugrad.cs.ubc.ca, v3v9a@ugrad.cs.ubc.ca |
| Coding Lead | Cathy Leung, Leo Cheng | [c0z9a@ugrad.cs.ubc.ca](mailto:c0z9a@ugrad.cs.ubc.ca)  b3b1b@ugrad.cs.ubc.ca |
| Testing Lead | Aurora Qiu, Shaw Lu | g1e0b@ugrad.cs.ubc.ca  i0z9a@ugrad.cs.ubc.ca |
| Release Management & Maintenance Lead | Leo Li | i2e0b@ugrad.cs.ubc.ca |

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