Privacy Technologies for Financial Intelligence - Customer Descriptions

# Introduction

This document attempts to detail the personas, needs and purpose behind the software solution we are building. It attempts to write some truthful personas for end users, fully understanding their needs, aspirations, frustrations and desires. What personas are seeking from the software solution will be captured in simple user stories showing the functionality the new solution should entail. This document also holds some good references on writing software user stories and the Software Development Lifecycle (SDL).

There is one critical question in this document which is relevant to all the drafted user personas being: ‘*How do we assure people that sensitive information can be protected during research, sharing or collaboration?’* It doesn’t really matter the type of collaboration as there are so many different types of situations a typical user could encounter. On a further note, the user stories are estimations of possible use case scenarios for end customers. They will not represent all end use cases for the software solution. Only the most important end use cases. It is also noted some user stories might not even end up being viable representations for the finished product.

Bondarenko (2018) notes that good user stories follow the INVEST criteria, meaning that they’re: Independent, Negotiable, Valuable, Estimable, Small and Testable. In writing the user personas, stories and epics for this project this criterion has been considered. It should be kept in mind for future work.

# User Personas

## 1: Accounting Employee

My name is Max, and I work at one of the big 4 accounting firms as an Assistant Accountant. I have a Bachelor of Business majoring in accounting, and 4 years’ experience working in Financial Services. Since I deal with accounting software all the time, I have a basic understanding of Software Programming, though no formal qualifications.

Recently, as part of our business endeavours we have had to share customer data to third parties. I understand that a lot of privacy breaches happen at third parties which worries our partners. I want to gain a good understanding of PET technologies that can be easily implemented on customer data to protect sensitive information we would like to share. This will enable me to ensure our partners that our data is in a protected form when shared with third parties. On top of this, I want to understand, how well these technologies protect the information and what will it take to compromise the information once these technologies have been implemented.

## 2: Telecommunications Manager

My name is James, I work as a manager at a major Telecommunications Company. In the past couple of years, the company has had major data breaches with a lot of user information accessed illegally and sent overseas. As a result, my company has lost a lot of trust in the market. Naturally, we want to ensure these data breaches never happen again and update our processes and customer data checklists to incorporate various Privacy Enhancing Technologies.

I would like a resource where I can gather information on Privacy Enhancing Technologies. This resource will recommend optimal privacy technologies to secure telecommunications data. Research and test cases will be available through this resource. I will be able to see how these technologies compare to each other, a clear explanation of them and discussion on how they work. Finally, the resource will have a link to esteemed Github repositories so our technology team can investigate implementing these technologies.

## 3: Financial Services Credit Analyst

My name is Jillian, I work in a large Financial Services Institution as a Credit Analyst. I have been in my role for the past 10 years and enjoy it. For qualifications I hold some certifications in Financial Analysis along with a Bachelor of Commerce. It is necessary in my role to store and protect sensitive customer information.

However, I don’t have any formal qualifications in Information Technology as it is not my area and consider myself bad with computers. I would like a resource which helps me better understand software which can help protect sensitive financial information. This resource will have easy to understand explanations on technologies, test use cases and software libraries to implement them in case I want one of our Information Technology professionals to seriously consider implementation.

## 4: Cyber Security Consultant

My name is Jennifer, I work as a Cyber Security Consultant at a Big Four consulting firm. In my role, it is essential that I protect customer data from malicious outsiders, and I specialize in implementing controls for public sector organizations. Being across Information Technology and Software Development, I have worked in the industry for 3 years, holding a master's in information technology. I would like to access a resource which has many software libraries on the latest privacy enhancing technologies. This resource will also have research on new technologies and discuss their effectiveness with public sector information.

## 5: University Researcher

My name is Stephanie, I work at one of the largest Universities in Australia as an Information Technology Research Assistant. I have worked in my role for 2 years and hold a master's degree in information technology. As part of my role, I need to understand and research many different technologies and how they can be applied to protect customer data. I would like a resource where I can easily access technical information on privacy enhancing technologies. This resource will have links to libraries where I can implement these technologies allowing me to complete practical research.

## 6: Healthcare Employee

My name is Grace, I work in healthcare as a Nursing Assistant, possessing a Bachelor of Nursing and some experience. In my role, I must care for many sick and injured people dealing with a lot of sensitive customer information. I want to ensure that my patients’ data is protected securely. While I have a good understanding of Mathematics, Information Technology is not my area. I would like to learn more about the threats to customer data in a public organisation. Furthermore, I would also like to understand some basic techniques you can implement to ensure customer data is not compromised.

## 7: Public Servant

My name is Xin, I’m an executive in the federal government. I have a good understanding of technology and privacy legislation, and a very good understanding of money laundering and transnational crime. In my role I need to invest in IT solutions to share financial intelligence with domestic and international partners. I want my analysts to discover information more easily by securely comparing our information with information held by others. I also want to share information seamlessly with private and public partners, even though they have different risk profiles. A product which does it all, and does it securely, would be ideal.

## 8: Police Officer

My name is Trinity, I’m a police officer. I don’t know anything about financial crime, and I don’t really want to. All I need is a tool which lets me easily check whether a suspect has financial records. I don’t want to send notices to every bank in Australia every time I get a new case. I also don’t want to tip off the bank employees and risk my investigation. I’ll decide whether to serve a warrant or notice once I know whether the financial records exist, so I need to make my initial inquiries discreetly. If it’s possible, I want to do this domestically and internationally, but I'll settle for domestic if I have to.

# User Stories

* As a bank employee, I would like to easily obtain information on Privacy Enhancing Technologies which can help me protect customer data;
* Being a bank employee, I want to understand ways to put customer data in a more secure format for an event when I need to share this information with Third Party stakeholders.
* As a financial services credit analyst, I access a lot of customer data. Therefore, I want to access a resource which helps me to protect this information.
* Being a university researcher, I want to access a resource where I can read discussion papers on Privacy Enhancing Technologies;
* Being a researcher, I want to access a resource comparing various Privacy Enhancing Technologies and setting out a framework for further research directions.
* As a healthcare employee, I want to access a resource providing easy to understand education material on best practices for protecting customer data;
* Being a cyber security consultant, I want a resource where I can easily access software to implement Privacy Enhancing Technologies on third party customer data, providing assurances to my stakeholders that this data is in protected format.
* Being a cyber security consultant, I want a resource recommending and discussing optimal privacy enhancing technology for given hypothetical use case scenarios. This will help me implement correct privacy enhancing technologies in real life.
* Being a cyber security consultant, I also want to access a resource where I can read research on use case implementations of Privacy Enhancing Technologies.
* Being a Telecommunications manager, I want to implement Privacy Enhancing Technologies (PET) allowing me to better secure customer data so I can help prevent and mitigate possible data breaches.
* As a user, I want to understand when the most effective use case is for implementing various privacy enhancing technologies so I can secure sensitive information.

# Epic 1: Overview of Privacy Enhancing Technologies

**A story**: As a user, I want to access a resource clearly explaining Privacy Enhancing Technologies. This will outline what they are, how they work and possible use cases in an easy to understand and presentable manner.

**A story**: as a researcher, I want to access a resource discussing legislation and the application of privacy technologies to various datasets and industries. For example, marketing, financial services and telecommunications datasets.

# Epic 2: Accessing Information and Research on Privacy Enhancing Technologies

**A story**: as a novice with information technology. I want to access a website resource providing me with information on popular privacy technologies. Benefits and cons of their implementation will be elaborated on. This resource will also include the best use cases for implementing each technology.

**A story**: as a technology researcher I want to access a resource which discusses the various privacy technologies. This resource will outline future research directions and provide the latest research on these technologies.

# Epic 3: Implementing Privacy Enhancing Technologies

**A story**: as a cyber security consultant I want to access a software library of Privacy Enhancing Technologies so I can easily implement one I choose on a given dataset.

**A story**: as a cyber security consultant, I further want to access test implementation and discussion of privacy technologies so I can decide on the optimal one to use given my specific scenario.

**A story**: as an admin I want to easily be able to update these software libraries to encompass new libraries and useful test implementations and discussion on the privacy technology.

# References

Rehkopf M. (2023). User Stories with Examples and a Template*.* Agile Topics: Software Development. Atlassian 2023. accessed 30th of November 2023. [User Stories | Examples and Template | Atlassian](https://www.atlassian.com/agile/project-management/user-stories)

Radigan D. (2023). *Story points and estimation*. Software Development: Agile. Atlassian 2023/ accessed 2nd of December 2023. [What are story points in Agile and how do you estimate them? (atlassian.com)](https://www.atlassian.com/agile/project-management/estimation)

Bondarenko A. (Last updated: May 2, 2022). *How to Write a Good User Story: with Examples & Templates*. Stormotion (2023). accessed 2nd of December 2023. [How to Write a Good User Story: with Examples & Templates (stormotion.io)](https://stormotion.io/blog/how-to-write-a-good-user-story-with-examples-templates/)

Drumond C. *Agile Project Management - What is it and how to get started?* Agile: Project Management. Atlassian 2023. accessed 2nd of December 2023. [Agile Project Management [What is it & How to Start] (atlassian.com)](https://www.atlassian.com/agile/project-management)

Rehkopf M. (2023) Agile epics: definition, examples, and templates. Agile Topics: Software Development. Atlassian 2023. accessed 2nd of December 2023. [Epics | Atlassian](https://www.atlassian.com/agile/project-management/epics)

Rehkopf M. (2023) Stories, epics, and initiatives. Agile Topics: Software Development. Atlassian 2023, accessed 2nd of December 2023. [Epics, Stories, Themes, and Initiatives | Atlassian](https://www.atlassian.com/agile/project-management/epics-stories-themes)