**XPendit Domain Model Document**

**Developers: P.A.L.S.S.**

**In this document, we present our domain model and explain the thought process that created it.**

Our first, foundation-level class is the Person, which represents a possible user. One person may only have one Account, which is identifiable through a unique username and password and searchable by other users via associated email address. There can be many accounts assigned to many rooms – that is, one account may be a part of more than one room, and each room may consist of more than account (representing the individuals living, working, or existing together in real life). Similarly, many accounts can be associated with many charges. One account may incur multiple charges, and conversely, a single charge may be split among multiple accounts. An individual holding an account also has the ability to create a room, manage charges in several different ways, and make payments electronically.

A room has an inherent size (that is, the number of people within it), a name or label, and the actual members that make it up. When called on, the room class should provide the functionality of listing its size and members, as well as providing the function caller to exit the room if they no longer share the space with other room members. One room also provides the ability to share many lists among group members. Each room member should be able to view the name and elements of each list.

As far as charges go, each has a large number of inherent qualities, including its date of initiation, which account created it, which accounts received it, and a label describing what it was for. These values should be accessible via function calls. There are two main types of charges: recurring charges, and one-time (standalone) charges. Recurring charges have the additional attribute of their period, describing how often they are assessed.

Functions marked with an (ovl) tag are overloaded and may be constructed in several ways depending on the case at hand.

