# Техническое задание на программу для ЭВМ «HomeBuh» версия 1.

# 1. Описание

Программа представляет собой клиент-серверное приложение (десктопный и web - клиенты) для управления семейными финансами.

Приложение ведёт учёт расходов и доходов, а также на основании гибкого алгоритма резервирует свободные средства на определенные расходы

# 2. Логика работы

Ядро приложения – база данных с таблицами расходов, доходов и статьи расходов (в виде дерева). Статья расходов – модель, содержащая поля: Наименование, Минимальная сумма для резервирования, Максимальная сумма для резервирования, Желаемая сумма резервирования в единицу времени (н-р, в месяц).

Приложение принимает запросы на добавление запросов и расходов, на редактирование дерева статей расходов, редактирование формулы (скрипта) распределения расходов на статьи. Фоновый процесс приложения выполняет распределение расходов по статьям.

Общие формулы может изменить только администратор, частные формулы добавлять и изменять может любой пользователь. Общие формулы доступны на чтение всем, частные – только владельцу.

# 3. Требования

Сервер работает по протоколу http(s), должен обрабатывать не менее 300 запросов проверки обновлений в секунду.

Доступ к данным о пакетах обновлений, обновлениях и доступ в ARM только авторизованным пользователям (клиентам). Ограничение авторизаций клиента: не более трёх неудачных попыток за 10 минут. Уведомление о попытках неудачных авторизаций после десяти подряд.

Доступ в ARM ограничен в первой версии только одной учетной записью администратора сервера. Роли в первой версии не предусмотрены.

# 4. Технологии

## 4.1. Сервер

* EntityFramework
* ASP .NetCore
* .NetCore 5.x

## 4.2. Базы данных

* PostgreSQL

## 4.3. Тестирование

* XUnit
* Moq

## 4.4. Web-client

* ASP .NetCore
* ReactJS или AngularJS
* Html
* Css
* JQuery

## 4.5. Установщик

* WixInstaller

## 4.6. Клиент

* EntityFramework
* .NetCore 5.x

# 5. Лицензирование

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