CSE 499: Project Description

## Instructions

Describe your project in enough detail to inform classmates of the purpose, scope, and even anticipated technology of your project. This is a sales pitch to get classmates to join your team. You may have this already done from a previous class. Each team will contain 2-4 members with a goal of 3. Use any means necessary to communicate the details of your project. Use the following headings to help you describe your project. Add more as necessary.

Project Name: Metalsmith Helper

Project Proposed by: Golden Smith

**Fill in this information only if your project is chosen**

Team Members \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Synchronous meeting time \_\_\_\_\_\_\_\_\_\_\_

## Purpose

Describe the problem your project will address.

When making jewelry there are bits of data that need to be readily accessible to facilitate efficient workflows. They include things such as metal alloy compositions, alloy melting points, casting temperatures, burnout cycles, mold material to metal weight conversions, flask volume, and investment ratios. This project aims to create a cross-platform app that can be used by a metalsmith to solve these problems.

## Features

List the main features of your project

* Cross platform app that can be used on a phone or computer, it must operate when not connected to the internet.
* Database of metal alloys that contains, metal mix, melting point, specific gravity, and casting temperature(range), current price (update from internet).
* List of burnout cycles
* Calculator functions
  + Calculate the quantity of investment needed given flask size.
  + Calculate the amount of each constituent metals needed to create a specified amount of a given metal alloy.
  + Given an amount of metal alloy calculate the current price.
  + Calculate the amount of metal needed to cast given the mold weight
* Databases should be stored online but synced local, so application works without network connectivity

## Technology

Describe the anticipated technologies you will incorporate into your project.

The project will use C# using the dot net MAUI framework. Data will be stored in OneDrive using graph API.