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1. Final Project: Foundation 4 project
2. Descriptions:
   1. Abstraction with YouTube Videos
      1. Practice Abstraction by creating classes and simplifying the code.
      2. This program will track YouTube videos of interest including comments and their authors. It will have a Comment class which will track a comment and author of the comment. It will also have a Video Class and Comment Class. Video class will store track title, author and length. The Video class will keep a list of Comments. The main program will create a few videos with 3-4 comments each. It will then display back thee title, author, length, # of comments with all the comments for that video.
      3. Note, I will be using a csv file to load in the video and comments info using the format: Video Title~~Video Author~~Video Length~~Comment 1 Author~~Comment 1~~Comment2 Name~~Comment 2~~…
   2. Encapsulation with Online Ordering
      1. Practice Encapsulation by keeping the details of each class private unless absolutely necessary and only use methods to change internal attributes of a class.
      2. This program will create 4 classes, Product, Customer, Address and Order. Order will keep a list of Products and Customer. It will handle calculating cost of the order and displaying packing and shipping labels. Product Class will track name, product id, price, quantity of each product. Customer Class will track name and Address (class). It will return back from Address Class if it’s a US based address. Finally, the Address Class will simply track the address and return if it’s US based and have typical Getters/Setters. The program will use these classes to create orders with packing labels, shipping labels and price of the order.
   3. Inheritance with Event Planning
      1. Practice Inheritance by creating child classes which will inherit from a parent class.
      2. This program will have a parent class Event with 3 child classes Lectures, Receptions, Outdoor which will inherit Event Title, Description, Date, Time and Address from the Parent Event class. These classes will have the ability to generate 1 of three options Standard Details, Full Details, Short Description. It will also have an Address class to track addresses.
   4. Polymorphism with Exercise Tracking
      1. Practice Polymorphism by using overwrite methods to create unique behaviors for child classes.
      2. This program will create an Activity Parent class with Child classes for Running, Cycling, Swimming taking inheritance from the Activity class. The Activity class will use virtual methods for distance, speed, pace. The child classes will override these. The parent class will also have a GetSummary method to summarize and return results. The main program will then create an activity for each type, storing them in a list. Then it will be able to iterate through the list running GetSummary for each to display.