CIS 400 Exam 2

Vocab List

Theoretical computer science terms

Composition – refers to assembling a class from other classes, “composing” it. It references the other classes, so w call it a has-a relationship. It has a strong relationship.

Events – typically generated by a user, but also can be from sensors or network connections. They are a staple of graphical user interfaces. Can be anything like clicking anything, hitting a key or even moving the mouse.

Event Loop – also known as a message loop. Also attached is a message queue, adding new events that the GUI needs to know about to the queue. The loop is embedded in the main function of the program and continuously checks for a new message.

Event Queue – also know as a message queue. Is an infinitely repeating loop called the message loop. It is managed by the operating system.

Data Binding – refers to binding 2 objects together programmatically, so that one has access to the data of the other. See this in user interfaces and data objects. Synchronizes data between a provider and consumer, so that any time the data changes, the change is reflected. Seen in GUIs.

MVVM Pattern – Model – View, View Model. Splits the user interface into two classes. The view and a viewmodel. The View and View Model are connected via DataBinding. The View Model is data binded to the model and the model is more of the complex logic.

1. The Event is used when a collection has been modified. An example could be adding, removing or changing a element of the collection.
2. Parenthetical casting is a more explicit casting which is telling the computer you are treating the object as the instance. As is more of a safe casting. It attempts to cast the object to the type, if the object is not able to cast to the type, it’ll return null instead.
3. Static means all objects created share the same field.
4. Alpha – Beta = Generalization
5. Alpha - Theta = Aggregation
6. Alpha – Ieta – Realization
7. Interface only specifies the method signatures that can be implemented. In other words, it specifies a contract that must be implemented by a class. A base class is where it provides the members implementation and values that can be inherited
8. Anywhere
9. Only within the class
10. Class and descendants
11. A method that’s executed in response to an object being raised by an object. It’s responsible for performing an action or executing some logic when an event occurs.
12. Key aspect in MVVM. Binds user interface or the view to the model and view model. In our project each menu item control is set to the related item class as a new instance.
13. Composition is fundamental for layout, reusability, structure, and data binding. It also allows combining and reusing visual elements in the user interface. Achieved through grid , stackpanel or a wrap panel.
14. Kappa - Composition
15. DataBinding code. Need to remember “{Binding Path = And the properties needed.
16. For Property Changed tests, Need two tests one for berries and then cream , should verify that bool is correct, and the calories are correct At the least, need to look at UML to determine if need price and special instructions. Can do something like

[Theory]

[InlineData(false, “Calories”)]

Public void ChangingBerriesShouldNotifyPropertyChanged(bool extra, string propertyName)

MoreCrepes mc = new(); Assert.PropertyChanged(mc, propertyName, () =>

{

mc. Berries (Cream) or whatever) = extra;

});

1. Need to make sure to do propertychanged event handler and method