1. Class diagram for program 1 (YouTube Videos)

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| **Video** |
| \_title: str  \_author: str  \_length: int  \_comments: List<Comment> |
| GetNumComments(): int  AddComment(comment: Comment): void  DisplayInfo(): void |

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| **Comment** |
| \_author: str  \_text: str  \_timestamp: str |
| DisplayComment(): void |

**Video Class**:

* Stores video **title**, **author**, **length**, and **comments**.
* Provides methods to **add comments**, **count comments**, and **display video details**.

**Comment Class**:

* Stores the **commenter's name** and **comment text**.
* Has a method to **display the comment**.

1. Class diagram for program 2 (Online Ordering Program)

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| **Order** |
| \_products: List<Product>  \_customer: Customer |
| CalculateTotal(): float  GetPackingLabel(): str  GetShippingLabel(): str |

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| **Product** |
| \_name: str  \_productId: str  \_price: float  \_quantity: int |
| GetTotalCost(): float |

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| **Customer** |
| \_name: str  \_address: Address |
| IsUsa(): bool |

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| **Address** |
| \_street: str  \_city: str  \_state: str  \_country: str |
| IsUsa(): bool  GetFullAddress(): str |

* **Order Class**:
  + Stores **products** and **customer**.
  + Calculates **total price** (products' cost + shipping fee).
  + Generates **packing and shipping labels**.
* **Product Class**:
  + Stores **name, ID, price, and quantity**.
  + Computes **total cost** (price × quantity).
* **Customer Class**:
  + Stores **name** and **address**.
  + Checks **if the customer is in the USA**.
* **Address Class**:
  + Stores **street, city, state, country**.
  + Checks **if the address is in the USA**.
  + Formats **full address** as a string.