Foundation 01 abstraction

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| Class: Video |
|  |
| \_title: string |
| \_author: string |
| \_length: string |
| \_commentList: List<Comment> |
|  |
| DisplayVideoDetails(): void |

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| Class: Comment |
|  |
| \_commentName: string |
| \_commentText: string |
|  |
| DisplayComment(): void |

Foundation 02 encapsulation

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| Class: Product |
|  |
| \_productName: string |
| \_productID: string |
| \_price: double |
| \_quantity: int |
|  |
| CalculatePrice(): double |
| DisplayProductDetails(): void |

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| Class: Customer |
|  |
| \_name: string |
| \_address: Address |
|  |
| GetName():string |
| GetAddress():string |
| SetName():string |
| SetAddress():string |
| ShippingCost(): double |
| DisplayCustomer(): void |

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| Class: Address |
|  |
| \_streetAddress: string |
| \_city: string |
| \_state: string |
| \_country: string |
|  |
| SetCountry(): void |
| GetCountry():string |
| GetAddress(): void |

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| --- |
| Class: Order |
|  |
| \_products: List<Product> |
| \_customer: Customer |
|  |
| AddProduct(Product product): void |
| CalculateSubtotal(): double |
| CalculateTotal(): double |
| DisplayCosts(double subtotal, double shippingCost, double totalCost): void |
| DisplayPackingLabel(): void |
| DisplayShippingLabel(): void |

Foundation 03 Inheritance

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| --- |
| Class: Event |
|  |
| \_title: string |
| \_description: string |
| \_date: string |
| \_time: string |
| \_address: string |
| \_eventType: string |
|  |
| DisplayShortDescription(): void |
| DisplayStandardDetails(): void |
| DisplayFullDetails(): void |

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| Class: Lectures : Event |
|  |
| \_speakerName: string |
| \_capacity: int |
|  |
| DisplayLectureFullDetails():void |

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| Class: Receptions : Event |
|  |
| \_email: string |
|  |
| DisplayReceptionsFullDetails(): void |

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| Class: Outdoor : Event |
|  |
| \_weather: string |
|  |
| DisplayOutdoorFullDetails(): void |

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| --- |
| Class: Address |
|  |
| \_streetAddress: string |
| \_city: string |
| \_state: string |
| \_postalCode: string |
| \_country: string |
|  |
| GetAddress(): string |

Foundation 4 Polymorphism

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| --- |
| Class: Activity |
|  |
| \_date: string |
| \_length: double |
|  |
| GetDate(): string |
| GetLength(): double |
| CalculateDistance(): abstract double |
| CalculateSpeed(): abstract double |
| CalculatePace(): abstract double |
| DisplaySummary(): abstract void |

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| --- |
| Class: Running : Activity |
|  |
| \_distance: double |
|  |
| CalculateDistance(): override double |
| CalculateSpeed(): override double |
| CalculatePace(): override double |
| DisplaySummary(): override void |

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| --- |
| Class: Cycling : Activity |
|  |
| \_speed |
|  |
| CalculateDistance(): override double |
| CalculateSpeed(): override double |
| CalculatePace(): override double |
| DisplaySummary(): override void |

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| --- |
| Class: Swimming : Activity |
|  |
| \_laps |
|  |
| CalculateDistance(): override double |
| CalculateSpeed(): override double |
| CalculatePace(): override double |
| DisplaySummary(): override void |