

## Assignment 2A – pseudocodes

ABSTRACT CLASS Vacation

BEGIN

    CREATE double budget

    CREATE String destination

    CONSTRUCTOR Vacation(double budget, String destination)

    BEGIN

        this.budget ← budget

        this.destination ← destination

    END CONSTRUCTOR

    ABSTRACT METHOD compareBudget()

    METHOD toString()

    BEGIN

        String a ← "Budget: \$" + this.budget + "\nCompare Budget:  
        \$" + this.compareBudget( ) + "\nDestination: " + this.destination

        RETURN a

    END METHOD

END CLASS

CLASS AllInclusiveVacation extends Vacation

BEGIN

    CREATE String brand

    CREATE double rating

    CREATE double price

```
CONSTRUCTOR AllInclusiveVacation(double budget, String destination,  
String brand, double rating, double price)
```

```
BEGIN
```

```
    super(budget, destination)
```

```
    this.brand ← brand
```

```
    this.rating ← rating
```

```
    this.price ← price
```

```
END CONSTRUCTOR
```

```
METHOD double compareBudget( )
```

```
BEGIN
```

```
    RETURN this.budget-this.price
```

```
END METHOD
```

```
METHOD toString( )
```

```
BEGIN
```

```
    String a ← "Budget: $" + this.budget + "\nCompare Budget:  
$" + this.compareBudget() + "\nDestination:" + this.destination + "\nBrand  
: " + this.brand + "\nRating : " + this.rating + " stars\nPrice : $" + this.price
```

```
    RETURN a
```

```
END METHOD
```

```
END CLASS
```

```
CLASS PiecemealVacation extends Vacation
```

```
BEGIN
```

```
    CREATE String[] items
```

```
    CREATE double[] costs
```

CONSTRUCTOR PiecemealVacation(double budget, String destination,  
String[] items, double[] costs)

BEGIN

super(budget,destination)

this.items←items

this.costs←costs

END CONSTRUCTOR

METHOD totalCost()

BEGIN

CREATE total←0

FOR(i←0;i<costs.length;i←i+1)

Total←total+costs[i]

END FOR

RETURN total

END METHOD

METHOD compareBudget( )

BEGIN

RETURN this.budget-this.totalCost( )

END METHOD

METHOD toString( )

BEGIN

String a← "Budget: \$" +this.budget+ "\nCompare Budget:  
\$" +this.compareBudget( )+ "\nDestination: " +this.destination+  
"\nHotel: " +items[0]+ " \$" +costs[0]+ "\nMeal: " +items[1]+ "  
\$" +costs[1]+ "\nAirfare: " +items[2]+ " \$" +costs[2]

```

        RETURN a
    END METHOD
END CLASS

CLASS testVacation
BEGIN
    METHOD main( )
    BEGIN
        CREATE v1 as AllInclusiveVacation
        v1 ← new AllInclusiveVacation(5000.00, “France”, “ClubMed”, 4.00,
        4500.00)
        CREATE v2 as AllInclusiveVacation
        v2 ← new AllInclusiveVacation(5000.00, “Germany”, “Delta
        Vacations”, 3.00, 6000.00)
        CREATE String[] items
        CREATE double[] costs
        items ← {“Hotel Palace”, “Street Vendors”, “United Airlines”}
        costs ← {2000.00, 1000.00, 1500.00}
        CREATE v3 as PiecemealVacation
        v3 ← new PiecemealVacation(5000.00, “Japan”, items, costs)
        CREATE String[] items1
        CREATE double[] costs1
        items1 ← {“East Point Hotel”, “Hotel Buffet”, “Delta Airlines”}
        costs1 ← {3000.00, 500.00, 2000.00}
        CREATE v4 as PiecemealVacation
        v4 ← new PiecemealVacation(5000.00, “Australia”, items1, costs1)
    
```

```
    PRINT(v1.toString( ))
    PRINTLINE( )
    PRINT(v2.toString( ))
    PRINTLINE( )
    PRINT(v3.toString( ))
    PRINTLINE( )
    PRINT(v4.toString( ))
END MAIN( )
END CLASS
```