



# Rajarata University of Sri Lanka

Faculty of Applied Sciences

B.Sc in Information and Communication Technology

ICT 1306 (Object Oriented Programming)

Practical 03: Object and Classes

## Outline

- Objects and Classes
- Access Specifiers

## Outcome

At the end of this session students should be able to:

- Get knowledge about the Objects and Classes as well as regarding access specifiers.

1. Define a class named 'Circle' to represent a circle. The class contains:

- A data field named radius.
- Three functions to set radius, calculate the area of the circle and display the calculated area.

Prompts the user to enter a radius for a circle in the main method.

2. A musical instruments shop sells musical instruments including Guitars. If a buyer wish to buy a guitar then she/he can get the help from the computer system which is maintained by shop owner. The computer system requires a code for a particular guitar. After entering of the code it shows the details of the specific guitar. Use Object Oriented Programming concept to stimulate above situation.

\*Assume – The shop maintain only four varieties of guitars.

| Code               | 1            | 2            | 3            | 4            |
|--------------------|--------------|--------------|--------------|--------------|
| Serial Number      | GU12         | GU45PLM      | GU125M       | GU245XL      |
| Unit Price (Rs :-) | 19500.50     | 27200.00     | 22500.00     | 33900.00     |
| Builder            | Fender       | Fender       | Fender       | Fender       |
| Model              | Stratocaster | Stratocaster | Stratocaster | Stratocaster |
| Type               | Electric     | Electric     | Electric     | Electric     |
| Back Wood          | Teak         | Teak         | Alder        | Alder        |
| Top Wood           | Teak         | Alder        | Teak         | Alder        |

3. Define a class to represent a bank account. It contains:

- Data Members – Name of the account holder, Account Number, Balance
- Member Functions – Set the name, account number and balance, withdraw (balance>withdraw), deposit and display data.

Allow user to enter their name, account number, deposit or withdraw amount.

### **Take Home Assignment**

1. Develop a student grading system by using Object Oriented Programming concepts.

### **Next Practical: Constructors**