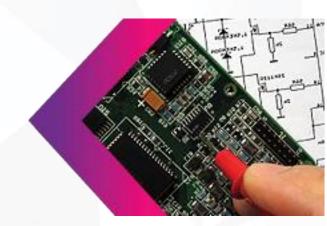
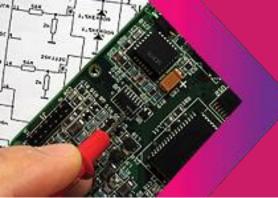




# UI Programming using Qt Quick and QML Workshop





## NOW FOR SIMPLIFIED SOLUTIONS

## UI Programming using Qt Quick and QML - Workshop

#### • Objectives:

- ✓ Become proficient in developing GUI using QML
- ✓ Get familiar with QML concepts elements, layouts, positioners, properties and signals
- ✓ Learn to structure/modularize QML programs
- ✓ Implement Fluid GUI design
- ✓ Learn to build applications by integrating QML and C++

#### • Duration:

- ✓ 2 days (One weekend)
- ✓ 4 session (Duration of each session: 3 to 3.5 hours)

#### • Platform:

Any Linux Platform supporting QT (Preferably Ubuntu)

• Delivery method:

Workshop based approach with demo and hands-on exposure

#### • Pre-requisites:

Knowledge about Qt programming using C++

#### • Detailed course contents:

- ✓ Kickstart
  - Using the IDE
  - Illustration: Hello World

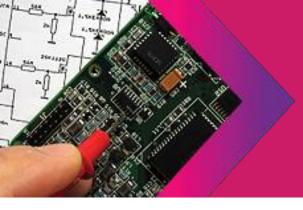
#### ✓ Qt Quick Overview

- Qt Quick Components
- QML Language Overview
- Qt Modules Overview

#### Programming with QML

- Basic concepts and GUI elements
- QML Syntax
- QML Components
- Properties
- Alias properties
- Signals
- Functions





## NOW FOR SIMPLIFIED SOLUTIONS

- ✓ Building GUI using QML
  - QML Elements
  - QML Item
  - Visual Elements
  - Item Layouts
  - Item Coordinates
  - Item anchors
  - Positioners

#### ✓ Structuring QML Programs

- QML Components (creation)
- Component files and import
- Property scopes
- Inline components
- Dynamic Loading

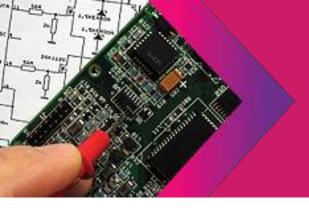
#### ✓ Building Fluid GUI

- QML Animations
  - Animation Overview
  - $\circ \quad \text{Animation basics} \quad$
  - $\circ \quad \text{Animation types} \quad$
  - Animation objects
  - $\circ$   $\,$  Animation grouping  $\,$
  - Drag and drop
- GUI states and animated state transitions
  - GUI states in QML
  - State transitions

#### ✓ User Interaction

- Mouse and Key Events
  - Mouse Input
  - Mouse drag
  - Keyboard Input
- Flickable element
- ✓ Displaying Data
  - Models, views and delegates
  - Data elements
    - o Data models
    - o Data views
    - GUI delegates





## NOW FOR SIMPLIFIED SOLUTIONS

- ✓ Hybrid programs (Integrating QML with C++)
  - QDeclarativeView
  - QdeclarativeContext
  - Exporting Objects to QML
  - Using exported classes in QML
  - QML object visibility





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