SolidWorks API Automation Course Syllabus

Chapter 1: Getting Started with Basics- VBA

- ✓ Lesson 1: Getting Started & Understanding SolidWorks Architecture.
- ✓ Lesson 2: SolidWorks Macro.
- ✓ Lesson 3: Getting started with sketch. (VBA).
- ✓ Lesson 4: Getting Started with Modelling. (VBA).
- ✓ Lesson 5: Create User Form. (VBA).

Chapter – 2 Getting Started with Basics- C#

- ✓ Lesson 6: Getting started with sketch (C# in Visual Studio Environment)
- ✓ Lesson 7: Getting Started with Modelling (C# in Visual Studio Environment)
- ✓ Lesson 8: Create User Form. (C#)

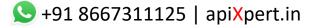
Chapter – 3 Important API and Method.

- ✓ Lesson 9: API's & Methods.
 - Open Existing File.
 - o Get Document Count.
 - o Close All Documents.
 - o Rebuild Document.
 - o Quit SolidWorks.
 - o Get Default Template.
 - o Equation Manager.
 - o Custom Property Manager.
- ✓ Lesson 10: Save File with File browser, UI Enhancement.
- ✓ Lesson 11: System Options and Document Properties.
- ✓ Lesson 12: Mass Properties: Mass, Volume, Density, Surface area, Principal moments of inertia, Moments of inertia.

Chapter – 4 Transverse through Object.

- ✓ Lesson 12: Transverse through Feature Manager Tree.
 - o Get First Feature.
 - o Get Next Feature.
 - o Set Material.
 - o Set Colour.
 - o Get Face Count.
 - o Select Face.
 - o Set Face Name.
 - o Get Edge Count.





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Chapter – 5 Getting Started and Working with Assembly.

- ✓ Lesson 13: Assembly Concepts, Techniques and API's.
 - o Get Assembly Template.
 - o Add Component to Assembly.
 - o Zoom to Fit.
 - o Add Concentric Mate.
 - o Add Distance Mate.
 - o Add Coincident Mate.

Chapter – 6 Getting Started and Working with Drawing.

- ✓ Lesson 14: Drawing Concepts, Techniques and API's.
 - o Get Drawing Template.
 - o Set & Get default Custom Template.
 - o Add Models to Drawing.
 - o Create Various Drawing Views.
 - o Set scale.
- ✓ Lesson 15: Create Sectional Drawing Views.
- ✓ Lesson 16: Drawing Sheet Coordinates.
- ✓ Lesson 17: Drawing Views.
 - o Create Detailed View.
 - o Set Dimension for Selected Entity.
 - o Set Position.
 - o Auto Dimension.
 - o Create Text/Note.
 - o Insert General Table.
 - o Adjust Table Size.
 - o Fill Custom Values/Text in Table.
 - Export Drawing to PDF, DXF etc,

Chapter – 7 Working with Excel.

- ✓ Lesson 18: Excel Workbook.
 - o Connect Excel Work Book to SolidWorks.
 - o Print All Components in Assembly to Excel Workbook.

Chapter – 8 Production / Launch.

- ✓ Lesson 19: Production Release.
 - o .EXE / Application.
 - o .dll / Add-in.





Chapter – 9 Demo Project with C# Concepts and Tricks.

- ✓ Lesson 20: Sketch, Coordinates, Model.
- ✓ Lesson 21: Assembly: Import Components, Positioning, Mate.
- ✓ Lesson 22: Drawing: Import Model, Create View, Add Note, Add Dimension, BOM.
- ✓ Lesson 23: Post-production.



