1. Record Nr. UNINA9910595598503321

Autore	Tripathi Suman Lata
Titolo	Programming and GUI Fundamentals : TCL-TK for Electronic Design Automation (EDA)
Pubbl/distr/stampa	Newark : , : John Wiley & Sons, Incorporated, , 2022 ©2022
ISBN	1-119-83744-8 1-119-83742-1
Descrizione fisica	1 online resource (226 pages)
Altri autori (Persone)	KumarAbhishek PathakJyotirmoy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Cover -- Title Page -- Copyright Page -- Contents -- About the Authors -- Chapter 1 Introduction -- 1.1 Features of Tcl -- 1.2 Special Variable -- 1.3 Tcl First Program -- 1.4 Tcl Identifiers -- 1.5 Applications of Tcl -- References -- Chapter 2 Basic Commands -- 2.1 Introduction -- 2.2 Set Command -- 2.3 Variable Substitution -- 2.4 Grouping -- 2.5 Command Substitution -- 2.6 Math Expressions -- 2.7 Backslash Substitution (\&amp --) -- 2.8 Tcl Operator -- 2.8.1 Arithmetic Operators -- 2.8.2 Relational Operators -- 2.8.3 Logical Operators -- 2.8.4 Bitwise Operators -- 2.8.5 Ternary Operators -- 2.8.6 Shift Operators -- 2.8.7 Tcl In-built Math Function -- 2.9 Procedure -- 2.10 Eval Commands -- 2.11 Solved Questions -- 2.12 Review Questions -- 2.13 MCQs Based on Tcl Basics -- References -- 2.A Appendix I (Built-in math functions) -- 2.B Appendix II (Tcl Backslash sequence) -- Chapter 3 Program Flow Control -- 3.1 If-Else Command -- 3.2 Switch-Case Command -- 3.3 Loop Command -- 3.3.1 While Loop -- 3.3.2 For Loop -- 3.3.3 Foreach Command -- 3.4 Continue and Break -- 3.5 Catch and Error -- 3.6 Solved Problems -- 3.7 Practice Questions -- 3.8 MCQs -- References -- Chapter 4 Tcl Data Structure -- 4.1 String and Matching Command -- 4.1.1 Append Command -- 4.1.2 Format Command -- 4.1.3 Number Base Conversion with the Format Command -- 4.1.4 Scan Command --

4.1.5 Clock Command -- 4.1.6 Clock Format Command -- 4.1.7 Clock Scan Command -- 4.1.8 Clock Add Command -- 4.1.9 Solved Problems -- 4.1.10 Review Problems -- 4.1.11 MCQs on Strings -- 4.2 Lists and their Commands -- 4.2.1 List-based Commands -- 4.2.2 Solved Problems -- 4.2.3 Review Problems -- 4.2.4 MCQs on List -- 4.3 Arrays and their Commands -- 4.3.1 Array-Based Commands -- 4.3.2 Solved Examples -- 4.3.3 Review Problems -- 4.3.4 MCQs on Arrays and their Commands -- References.
Chapter 5 Tcl Object-Oriented Programming -- 5.1 Class -- 5.2 Creation of a Class -- 5.3 Define a Member in a Class -- 5.4 Define Method -- 5.5 Constructor and Destructor -- 5.6 Destroying of Class -- 5.7 Invoking Method -- 5.8 Registering Method for Callback -- References -- Chapter 6 File Processing -- 6.1 Introduction -- 6.2 Tcl File Command -- 6.2.1 Opening a File -- 6.2.2 Closing a File -- 6.2.3 Writing into a File -- 6.2.4 Reading of the File -- 6.2.5 Write with Append Mode -- 6.3 Tcl File In-built Commands -- 6.3.1 File Seek Command -- 6.3.2 File Tell Command -- 6.3.3 File Eof Command -- 6.3.4 List-based Command into the File -- 6.4 Solved Questions -- 6.5 Review Questions -- 6.6 MCQs based on Tcl File Processing -- References -- Chapter 7 Toolkit Widgets -- 7.1 Features of Tk Widgets -- 7.2 Geometry Manager -- 7.3 Widget Naming -- 7.4 Widget Dimension -- 7.5 Widget Configuration -- 7.6 Widget Programming -- 7.6.1 Button Widget -- 7.6.2 Label Widget -- 7.6.3 Textvariable Widget Command -- 7.6.4 Entry Widget -- 7.6.5 Frame Widget -- 7.6.6 Scale Widget -- 7.6.7 Message Widget -- 7.6.8 Spinbox Widget -- 7.7 Solved Problems -- 7.8 Unsolved Problems -- 7.9 MCQs on Tk Widgets -- References -- Chapter 8 Binding Commands and Other Widgets -- 8.1 Class and Widget Binding -- 8.1.1 Bindtag Command -- 8.1.2 Event Pattern -- 8.1.3 Event Type -- 8.1.4 Bind with Mouse Button -- 8.1.5 Bind with Mouse Motion -- 8.2 Widget Characteristic Commands -- 8.2.1 Unpack Command -- 8.2.2 Arranging on Side -- 8.2.3 Stacking -- 8.2.4 Cavity Model -- 8.2.5 Packing and Display Space (the fill and -expand commands) -- 8.2.6 Padding -- 8.2.7 Anchoring -- 8.3 Menubar-Menu-Menubutton -- 8.3.1 Entries to a Menu -- 8.3.2 Cascade Menu -- 8.4 Tearoff Command -- 8.5 Listbox Widget -- 8.6 Place Manager -- 8.7 Solved Problems -- 8.8 MCQs on Bind, Menu, and Place Manager -- References.
Chapter 9 Canvas Widgets and Tk Commands -- 9.1 Canvas Coordinate -- 9.2 Drawing over Canvas -- 9.2.1 Arc -- 9.2.2 Line -- 9.2.3 Rectangle -- 9.2.4 Polygon -- 9.2.5 Oval -- 9.2.6 Text -- 9.2.7 Bitmap -- 9.2.8 Image Widget -- 9.3 Event Binding of Canvas Object -- 9.4 Create a Movable Object -- 9.5 Tk built-in Command -- 9.5.1 Tk_choose Color -- 9.5.2 tk_chooseDirectory -- 9.5.3 tk_getOpenFile / tk_getSaveFile -- 9.5.4 tk_messageBox -- 9.6 Solved Problems -- 9.7 Review Problem -- 9.8 MCQs of Canvas -- 9.A Appendix A -- References -- Chapter 10 Tcl-Tk for EDA Tool -- 10.1 Accessing Vivado Tool via Tcl Script -- 10.2 Sourcing the Tcl Script with Vivado -- 10.3 Implementing Counter Program with Vivado Tcl Console -- 10.4 Advantage of Vivado in Tcl Mode -- Reference -- 10.A Appendix -- Index -- EULA.