

17VL009 SCRIPTING LANGUAGES

Hours Per Week :

L	T	P	C
3	1	2	5

Total Hours :

L	T	P	W/RA	SSH/SHS	CS	SA	S	BS
45	15	30	15	30	-	5	5	-

Course Objectives

- This course provides an introduction to the script programming paradigm
- Introduces scripting languages such as Perl, PHP and Python.
- Learning TCL

Course Outcomes:

- Comprehend the differences between typical scripting languages and application programming languages.
- Acquire programming skills using scripting languages.
- Gain knowledge of the strengths and weakness of Perl, TCL and Python and select an appropriate language for solving a given problem
- Ability to design web pages using advanced features of PHP.

SKILLS:

- Able to implement any program using scripting language.
- Able to resolve security issues in internet programming.
- Write a program of employs list of a company using perl.
- Write a programming of security issues on operative systems in perl.
- Write a program to store the data using TCL.
- Execute a program on addition by using eval function.
- Design a window and widget using TK.

ACTIVITIES:

- Write a program of employs list of a company using perl.
- Write a programming of security issues on operative systems in perl.
- Write a program to store the data using TCL.
- Execute a program on addition by using eval function.
- Design a window and widget using TK.

UNIT – I

Introduction to PERL and Scripting Scripts and Programs, Origin of Scripting , Scripting Today, Characteristics of Scripting Languages, Uses for Scripting Languages, Web Scripting, and the universe of Scripting Languages. PERL- Names and Values, Variables, Scalar Expressions, Control Structures, arrays, list, hashes, strings, pattern and regular expressions, subroutines.

UNIT – II

Advanced perl Finer points of looping, pack and unpack, filesystem, eval, datastructures, packages, modules, objects, interfacing to the operating system, Creating Internet ware applications, Dirty Hands Internet Programming, security Issues.

UNIT – III

TCL TCL Structure, syntax, Variables and Data in TCL, Control Flow, Data Structures, input/output, procedures , strings , patterns, files, Advance TCL- eval, source, exec and uplevel commands, Name spaces, trapping errors, event driven programs, making applications internet aware, Nuts and Bolts Internet Programming, Security Issues, C Interface. Tk-Visual Tool Kits, Fundamental Concepts of Tk, Tk by example, Events and Binding, PerlTk.

UNIT - IV

Python Introduction to Python language, python-syntax, statements, functions, Built-in-functions and Methods, Modules in python,Exception Handling. Integrated

UNIT – V

Web Applications in Python – Building Small, Efficient Python Web Systems, Web Application Framework.

SCRIPTING LANGUAGES LAB**LIST OF EXPERIMENTS**

1. Write a script that calculates the average performance score and prints out the members of the groups meeting the following criteria (each criterion should produce one group, rather than identifying a group that meets all four criteria): (a) native language is English (b) age is greater than 20 (c) age is greater than 20 and native language is English (d) performance score is greater than 70
2. Suppose you're given the following arrays containing participant information: @firstnames = ("Sarah", "Jareth", "Ludo", "Hoggle"); @lastnames = ("Williams", "King", "Beast", "Dwarf"); Write a script that asks the user whether the names should be sorted by first or last names, and whether the names should be sorted alphabetically or reverse alphabetically. Then, sort the participant list this way, and print out the sorted list of participants. Look at sort names reverseABC.pl for an example of sorting these names reverse alphabetically.
3. Suppose you're given the following arrays containing participant information: @firstnames = ("Sarah", "Jareth", "Ludo", "Hoggle"); @lastnames = ("Williams", "King", "Beast", "Dwarf"); @ages = (15, 39, 33, 43); @nativelanguages = ("English", "English", "Romanian", "English"); @performancescores = (85, 99, 35, 75);
4. Suppose you're given the following arrays containing participant information: @usernames = ("Sarah1", "Sarah2", "sarah3", "sArah4"); @scores = (10, 7, 42, 3); Write a program that outputs the participant information, sorted in one of the following ways: (a) ASCII-betical by participant username (b) case-insensitive ASCII-betical by participant username (c) numerical order by participant score (lowest to highest) (d) reverse numerical order by participant score (highest to lowest) The user should be able to choose which sorting order is preferred (default ASCIIbetical

on username) using a command line option. If you get stuck, have a peek at sort revnum.pl for an example of sorting this information reverse numerically.

5. Write a program on Recursive Procedures in TCL?
6. Write a program on Procedures with Variable Arguments in TCL?
7. Write a program on how to create a namespaces in TCL?
8. Write a program on regular expressions in TCL?
9. Design widget using TK?
10. Write a program on tuples in python?
11. Write a program on how to create strings?
12. Write a program on how to send one e-mail using Python script.

TEXT BOOKS:

1. David Barron, "The World of Scripting Languages", Wiley Publications, 1 edition 2000
2. Steve Holden and David Beazley, "Python Web Programming", ,New Riders Publications,2002

REFERENCE BOOKS:

1. J.Lee and B.Ware , "Open Source Web Development with LAMP using Linux Apache,MySQL,Perl and PHP" (Addison Wesley) Pearson Education,2002.
2. M.Lutz,SPD, "Programming Python", 2006