

Guru Nanak Dev Engg College Ludhiana
(Department of IT)

Format for Report (Six Months Training)

Title page

Certificate of Training

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Chapter 1 Introduction

Page 1 (onwards)

- 1.1** Introduction to Organization(should not exceed 3 pages including Figs.)
- 1.2** Introduction to Project
- 1.3** Project Category(Internet based, Application or System Development, Research based ,Industry Automation, Network or System Administration)
- 1.4** Objectives
- 1.5** Problem Formulation
- 1.6** Identification/Reorganization of Need
- 1.7** Existing System
- 1.8** Proposed System
- 1.9** Unique Features of the System

Chapter 2. Requirement Analysis and System Specification

- 2.1 Feasibility study (Technical, Economical, Operational)
- 2.2 Software Requirement Specification Document which must include the following:
 - (Data Requirement, Functional Requirement, Performance Requirement ,Dependability Requirement, Maintainability requirement, Security requirement, Look and feel requirement)
- 2.3 Validation
- 2.4 Expected hurdles
- 2.5 SDLC model to be used

Chapter 3. System Design

- 3.1 Design Approach (Function oriented or Object oriented)

- 3.2 Detail Design
- 3.3 System Design using various Structured analysis and design tools such as :
DFD's,Data Dictionary,Structured charts,Flowcharts or UML
- 3.4 User Interface Design
- 3.5 Database Design
 - 3.5.1 ER Diagrams
 - 3.5.2 Normalization
 - 3.5.3 Database Manipulation
 - 3.5.4 Database Connection Controls and Strings
- 3.6 Methodology

Chapter 4. Implementation, Testing and Maintenance

- 4.1 Introduction to Languages, IDE's,Tools and Technologies used for Implementation
- 4.2 Coding standards of Language used
- 4.3 Project Scheduling using various tools such as PERT,GANTT charts,Open PROJ etc.
- 4.4 Testing Techniques and Test Plans
- 4.5 Test cases used in the Project

Chapter 5. Results and Discussions

- 5.1 User Interface Representation (Of Respective Project)
 - 5.1.1 Brief Description of Various Modules of the system
- 5.2 Snapshots of system with brief detail of each
- 5.3 Back Ends Representation (Database to be used)
 - 5.3.1 Snapshots of Database Tables with brief description

Chapter 6. Conclusion and Future Scope

References/Bibliography

Annexures

Note: The report of respective project should be as per prescribed format and in the same order though if some of the points are not applicable in regard with the concerned project, they might be omitted.

SPECIFICATIONS FOR TRAINING REPORT

1. Report shall be computer typed (English- British, Font -Times New Roman, Size- 12 point) and printed on A4 size paper.
2. The Report shall be hard bound with white colored cover page.
3. The name of the candidate, degree (specifying the branch) , university roll no, session , year of submission, name of the University including college name shall be printed in black on the cover [Refer sample sheet (outer cover)]
4. The report shall be typed on one side only with double space with a margin 3.5 cm on the left, 2.5 cm on the top, and 1.25 cm on the right and at bottom.
5. In the report, the title page [Refer sample sheet (inner cover)] should be given first then the Certificate by the company/organization and the students' declaration followed by an abstract of the report (not exceeding 1500 words). This should be followed by the acknowledgment, list of figures/list of tables, notations/nomenclature, and then contents with page numbering.
6. References/Bibliography should be included in report.
7. The diagrams should be printed on a light/white background, Tabular matter should be clearly arranged. Decimal point may be indicated by full stop(.) The caption for Figure must be given at the BOTTOM of the Fig. and Caption for the Table must be given at the TOP of the Table.
8. The graphs should be combined for the same parameters for proper comparison. Single graph should be avoided as far as possible.
9. Conclusions must not exceed more than two pages.
10. Page numbering in the text of the report shall be typed at the center of the footer.
11. Pagination for pages before the introduction chapter shall be in lower case Roman numerals, e.g."iv" and those starting from the introduction chapter will bear page number "1" onwards.
12. The subsequent chapter shall begin on a fresh page.

Sample sheet (outer cover)

STATISTICAL PROCESS CONTROL OF MECHANICAL LOCKING SYSTEM FOR AUTOMOTIVES (24pt.)

REPORT (14pt.)

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR
Six Months Industrial Training (TR-104)

at

TCS, Mumbai
(from _____ to _____)

SUBMITTED BY

Priyanka Walia (14pt)

Branch

Univ. Roll No.

GNDEC Logo

Information Technology Department
GURU NANAK DEV ENGINEERING COLLEGE
LUDHIANA, INDIA (14pt.)

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LUDHIANA, INDIA (14pt.)

Abstract(Sample)

Packet Filtering firewalls can use a database of rules to decide which packets will be allowed to move in and out and from one network onto another. However with the increase in size of rule list, it's very hard to manage and validate the rules, which can also increase the cost of rule lookup and that may add significantly to latency. Packet filtering is the one of the major contemporary firewall design techniques. Implementation of such packet filter using Binary Decision Diagram (BDD) gives more advantages in terms of memory usage and look up time. In the case of the list-based packet filter firewall where rules are checked one by one for each incoming packet, the time taken to decide on a packet is proportional to the number of rules. The performance is improved with rule promotion but that is a slow and static kind of firewall implementation. In this work a BDD-based approach is presented which gives much better result in terms of number of comparisons or accesses the rule list make. This work presents the study, design and implementation of a packet filter firewall using binary decision diagram which provides faster processing of packets while maintaining the integrity of the original security policy. Results on large number of packets show that for most-accept packets, and for most- reject packets there is manifold reduction in such comparisons when BDD-based approach is used over list-based with promotion approach.

The overall performance of a firewall is crucial in enforcing and administrating security, especially when the network is under attack. The continuous growth of the Internet, coupled with the increasing sophistication of the attacks, is placing stringent demands on firewall performance. In this work, a traffic-aware optimization framework is described to improve the operational cost of firewalls. Based on this framework a set of tools are designed that inspect and analyze both multidimensional firewall rules and traffic logs and construct the optimal equivalent firewall rules based on the observed traffic characteristics. The current work is the first to use traffic characteristics in firewall optimization. To evaluate the performance of current approach, a large set of firewall rules and traffic logs from a local LAN or at tens of enterprise networks managed by a Tier-1 service provider are evaluated. The evaluated results find these approaches very effective. In particular, current work has achieved more than 10 fold performance improvement by using the proposed traffic-aware firewall optimization.

Letter Head of the Company/Organization

TO WHOM IT MAY CONCERN

I hereby certify that "NAME OF THE STUDENT", University Roll No _____ of Guru Nanak Dev Engineering College Ludhaina, has undergone Six Months industrial training from _____ to _____ at our organization to fulfill the requirements for the award of degree of B.Tech. in Information Technology. He/She works on _____ project during the training under the supervision of _____. During his/her tenure with us we found him/her sincere and hard working. Wishing him/her a great success in the future.

Signature of the SUPERVISOR (S)

(Seal of Organization)

Student's Declaration

I hereby certify that the work which is being presented in this training report with the project entitled(write project name here)” by (student's name to be written here), University Roll No. in partial fulfillment of requirements for the award of degree of B.Tech. (Information Technology) submitted in the Department of Information Technology at **GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA under I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY** is an authentic record of my own work carried out under the supervision of (write mentor's name here), (write designation here) of (Company Name). The matter presented has not been submitted by me in any other University / Institute for the award of B.Tech. Degree.

Student Name: _____

Univ. Roll No. _____

(Signature of Student)

This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

Signature of Internal Examiner

The External Viva-Voce Examination of the student has been held on _____.

Signature of External Examiner

Signature of HOD

SAMPLE SHEET-ACKNOWLEDGEMENT

ACKNOWLEDGEMENT

I am highly grateful to the Dr. Sehijpal Singh , Principal, Guru Nanak Dev Engineering College (GNDEC), Ludhiana, for providing this opportunity to carry out Six Months industrial training at _____.

The constant guidance and encouragement received from Dr. K. S. Mann, Head of the Department, GNDEC Ludhiana has been of great help during the training and project work and is acknowledged with reverential thanks.

I would like to express a deep sense of gratitude and thanks profusely to _____ Director/CEO of Company , . Without the wise counsel and able guidance, it would have been impossible to complete the report in this manner.

The help rendered by Mr _____, Designation(____Department _____) for experimentation is greatly acknowledged.

I express gratitude to other faculty members of Information Technology department of GNDEC for their intellectual support throughout the course of this work.

Finally, I am indebted to all whosoever have contributed in this report work and friendly stay at _____.

Priyanka Walia

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