SHORT-TERMINTERNSHIP

Dr. LANKAPALLI BULLAYYA COLLEGE
VISAKHAPATNAM

PROGRAM BOOK FOR
SHORT-TERM INTERNSHIP

Name of the Student   :   G. chandana

Name of the College   : Dr Lankapalli Bullayya College, Visakhapatnam

Registration Number   :   722128805462

Period of Internship   :   2 months

Name & Address of Intern Organization: smartinternz

Name of the University   :   Andhra University

Year   : 2024

An Internship Report on

Software Automation Testing

Submitted in accordance with the requirement for the degree of

B.S.C Biotechnology

Under the Faculty Guideship of

Sireesha mam

Department of

chemistry

Dr Lankapalli Bullayya College: Visakhapatnam

Submitted by

G. chandana

Reg. No.

722128805462

Dr. Lankapalli Bullayya College
Visakhapatnam-13

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Declaration

I _____G. chandana_____ student of _Software automation_

Program, Reg. No. _722128805462_ of the Department of _Biotechnology_

College do hereby declare that I have completed mandatory Short-Term

Internship Under the Faculty Guideship of ___Sireesha mam___

Department of _____chemistry_____, Dr.L.Bullayya College,

Visakhapatnam.

Signature of the student

Official Certification

This is to certify that _____ G. chandana _____

Reg. No. ___ 722128805462 ___ has completed Internship in

___ 3rd year ___ on ___ Software automation Testing

Under my supervision as part of a partial fulfillment of the requirement for
the Degree of ___ B.SC Biotechnology ___ in Department of

Dr. Lankapalli Bullayya College, Visakhapatnam.

This is accepted for evaluation.

Signature with Date and seal

Endorsements

Faculty Guide   :

Head of the Department   :

Principal   :

Acknowledgements

The completion of this project will be incomplete without mentioning of few names. I take this oppurtunity to acknowledge the efforts of the many individuals who helped me to complete this project. I want to express my hearful gratitude to Sireesha for giving me the oppurtunity to do my internship project at Smartintering. The supervision and support that he gave tolly help the progression and smoothness of the internship programm. I would like to thank Dr. mamatha for this support and guidance throughout the project study. The co-operation is much needed appreciated.

Finally I would like to thank my institute faculty of software automation, LBC for making this experience of internship programme. The learing from this experience has been immense and would be cherished throughout life.

Contents

This page content gives an idea only, which topics have to write.

1: EXECUTIVE SUMMARY

The internship report shall have a brief executive summary. It shall include five or more Learning Objectives and Outcomes achieved, a brief description of the sector of business and intern organization and summary of all the activities done by the intern during the period.

2: OVERVIEW OF THE ORGANIZATION

Suggestive contents

A Introduction of the Organization
B. Vision, Mission, and Values of the Organization
C Policy of the Organization, in relation to the intern role
D. Organizational Structure
E. Roles and responsibilities of the employees in which the intern is placed.
F. Performance of the Organization in terms of turnover, profits, market reach and market value.
G Future Plans of the Organization.

3: INTERNSHIP PART

Description of the Activities/Responsibilities in the Intern Organization during Internship, which shall include - details of working conditions, weekly work schedule, equipment used, and tasks performed. This part could end by reflecting on what kind of skills the intern acquired.

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Introduction to Software Testing	understand the fundamentals of software automation	
Day - 2	Different types of Software testing	understand the objectives, appro-aches for each type of testing	
Day – 3	Importance of Software testing in Software development	Analyze the role of testing in ens-uring Software Specifications	
Day – 4	Introduction to test automation	Evalute the ben-efits of test au-tomation in real world scenarios	
Day – 5	Advantages and disadvantages of test automation	Automated tests provide data-driven insights	
Day –6	when to automate tools	Identify scenar-ios where aut-omation is beneficial.	

Objective of the Activity Done: Introduction to software Automation

Detailed Report: Software testing is a critical process in software development aimed at ensuring that software applications function as intended and meet user requirements. It involves systematically evaluating a software product to identify defects or issues.

Purpose: The main goals of software testing are to verify that the intended functions, identify bugs and ensure that the software meets quality standards and user expectations.

Defect management: Involves identifying, recording and managing defects or bugs in the software. This includes tracking the defects status and ensuring they are resolved.

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Introduction to Katalon Studio	understand the fundamentals of Katalon Studio & its features	
Day – 2	features of Katalon Studio	create & manage a centralized repository of test objects	
Day – 3	Installation and Setup of Katalon studio	Download and install Katalon Studio on windows & Macos	
Day – 4	creating a new Project in Katalon Studio	understand the different project templates and Types	
Day – 5	Using Katalon Studio for API Testing	Integrate Katalon Studio with CI/CD pipelines for API Testing	
Day – 6	Using Katalon Studio for visual testing, AI-augmented	To enhance visual testing, machine Learning & computer vision	

Objective of the Activity Done: Introduction to katalon studio

Detailed Report: katalon studio is a powerful and versatile automation testing tool designed for both web and mobile applications. It simplifies the testing proce-ss through its user-friendly interface and making it accessible for both experienced testers and those new to automation.

Scriptless Testing: Users can create tests without writing code using its record-and playback feature. This featu-re captures user interactions with the application and generates corresponding test scripts.

Support for multiple platforms: It supports web, mobile and API testing. This allows users to test applications across various environments and the devices from a single tool.

ACTIVITY LOG FOR THE FIRST WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Adding test cases in katalon Studio	organize test cases in test suits and folders	
Day - 2	creating test suites in Katalon Studio	understand the purpose and benefits of test suits	
Day – 3	Running tests in katalon studio	Configure test execution settings and properties	
Day – 4	Recording and creating test cases in katalon Studio	understand and utilize katalon studios recording modes	
Day – 5	creating and maintaining web test objects using katalon	maintain & refacted test objects for optimal performance	
Day –6	organizing & managing katalon tests for Better Testing efficiency	understand of test result analysis and reporting	

Objective of the Activity Done: Adding Test cases in Katalons studio

Detailed Report: Adding test cases involves open katalon studio: Launch Katalon studio and open your existing project or create a new one.

Create a new Test case:

→ Go to the test cases tab in the test explorer panel on the left side of the screen.

→ Right-click on the test cases and Select New test case from the context menu, and select test case

Name the test case:

A dialog box will prompt you to Enter a name for the new test case. provide a meaningful name that reflects the functionality or scenario you are testing

→ click OK to create the test case.

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Data-driven testing with Katalon Studio	understand the concept of data driven testing & its benefits	
Day – 2	keyword-driven testing with katalon Studio	create & manage keyword libraries and test Scripts	
Day – 3	creating custom keywords in katalon Studio	Use katalon stu-dio's API to inte-ract with test objects	
Day – 4	using katalon Studio for cross-browser testing	Develop a comp-rehensive cross browser testing Strategy.	
Day – 5	katalon Studio exten-sions and integra-tion	understand how to develop custom extensio-ns	
Day – 6	Integrating katalon Studio with popular test management tools	Configure practi test integration with katalon Studio	

Objective of the Activity Done:	Data Driven test with katalon studio

Detailed Report:

In katalon studio, data-driven testing involves using external data sources like Excel files, csv files, on data bases to drive your test cases

→ Ensure your data is organized with headers in the first row, and each row contains data for test case.

→ similar to excel, ensure the data is organized with header.

→ Go to the test data section in katalon studio and click on New and select Test data.

→ choose excel as the data source type after Browse and select the excel file. Define the sheet and specify the range of cells to use in the data driven testing in the katalon studio.

ACTIVITY LOG FOR THE FIRST WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Integrating Katalon Studio with other Version control Systems	understand how to use version Control with team members	
Day - 2	Using katalon studio Plugins to enhance functionally	Use plugins to enhance test automation	
Day – 3	Integrating katalon Studio with Jenkins or other ci/cD tools	Learn how to create ci pipelin-es for test automation	
Day – 4	katalon studio reporting and analysis	understand how to generate and customize report	
Day – 5	Test case execution reports in katalon Studio	configure report Settings and templates	
Day –6	customizing test reports in katalon studio	understand how to use scripts to add logic to reports	

Objective of the Activity Done: Integrating katalon studio
Detailed Report: Integrating katalon studio with version control systems like Git, SVN or other is crucial for collaborative develop -ment and maintaining version history.
→ Ensure you have a Git repository set up on a platform like Gitlab or Bitbucket.
→ Go to File 7 settings (windows) or katalon studio 7 preferences and Go to team 7 Git.
→ If you are starting from an existing Git repository, use File 7 import 7 Git 7 projects from Git. and Enter your repository URL and follow the prompts to clone the repository
→ to pull the latest changes from the remote repository, use Team 7 pull.

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Developing and executing test automation	Understand how to create test cases and test suits	
Day – 2	Demonstrating and Skills learned throughout the cource	Demonstrate understanding of testing principles	
Day – 3	what is Sofware automating Tools	understand the how to create and execute automated tools	
Day – 4	Continuous integration and continuous Deployment	Automate testing and validation	
Day – 5	Automation for specific technologies	understand how to identify & resolve problems	
Day – 6	Artificial intelligence and machine learning in Automation	Learn how to apply AI & ML algorithms to real World.	

Objective of the Activity Done:	Developing and executing test automation

Detailed Report:

It involves several key steps, from designing your test cases to running them and analyzing the results.

Define objectives: Identify what you need to test and why. This could include functional requirements, performance expectations or other criteria.

Choose Tools: Select a test automation tools that fits your needs (katalon studio, seleniom test). consider factors like language support, integration capabiliti-es and ease of use.

create a test plan: outline what will be automated, how it will be execut-ed, and the resources required. Define the scope, objectives and criteria for success.

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	What is Test aut-omation frame Work design	Develop data-driven & keyword driven testing frame works	
Day - 2	Automation integra-tion with CI/CD Pipelines	understand the benefits & impo-rtance in soft-ware development	
Day – 3	Automation Resear-ch and Developme-nt	Develop and maintain auto-mation	
Day – 4	About Scripting Languages in sofwa-re automation	Learn how to integrate scripti-ng languages with CI/CD	
Day – 5	What is automation metrics and Reporting	understand how to use tools to collect and metrics data	
Day –6	Automation script Refactoring	understand the optimize scripts to improve Performance	

Objective of the Activity Done: Test automation, frame work design.

Detailed Report: A test automation framework design is a structured approach to organizing and managing automated test scripts. It provides a systematic way to execute, manage and maintain tests, ensuring efficiency and consistency.

→ Test scripts are written in a linear, sequential manner. and simple to implement and understand. Difficult to maintain and scale as tests become more complex.

→ Breaks tests into smaller, reusable modules or components. Encourages reuse and easier maintenance. Requires careful design or resuable components.

you can build a robust and efficient automation framework of your automated tests.

ACTIVITY LOG FOR THE FIRST WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	What is Regression testing	Learn how to identify the scope & objecti-ves	
Day – 2	Automation for specific Technologies	understand how to write effecti-ve tests for cloud based	
Day – 3	Automation integr-ation with other tools	Learn integration best practices and patterns for automation	
Day – 4	What is Automated file management	understand how to create folders, move files automatically	
Day – 5	Automated mobile App testing	understand how to identify and resolve problems	
Day –6	Automation of user registration	Automate user regrestation using variation tools	

Objective of the Activity Done: About regression test

Detailed Report: Regression testing is a type of software testing that ensures that new code enhances the changes have not adversely affected the existing functionality of the software. It involves re-running previously conducted tests to verify that the software still performs as expected after updates, such as bug fixes, enhancements, or other modifications. The goal is to detect unintended side effects or issues introduced the recent changes.

It is crucial to have a comprehensive suite of tests to cover different aspects of the software, application remains stable and functional.

Describe the work environment you have experienced *(in terms of people interactions, facilities available and maintenance, clarity of job roles, protocols, procedures, processes, discipline, time management, harmonious relationships, socialization, mutual support and teamwork, motivation, space and ventilation, etc.)*

→ fast-paced and constantly evolving

→ cross-functional teams working together

→ open communication and feedback encouraged.

→ continuous learning and professional development.

→ encouragement to experiment and innovate.

→ emphasis on acheiving automation goals and metrics.

→ support for work-life balance and well being.

→ Diverse and inclusive teams.

Software automation professionals to design, develop and maintain automated testing and deployment process.

1) proficiency in languages like python, Java, Java script, Ruby.

2) Expertise in frame works like selenium, Appium, Test complete or katalon.

3) understanding of API testing tools like Postman, Soapui and Rest Assured.

4) knowledge of network protocols and archietecture.

5) Ability to work effectly with teams.

6) willingness to learn new tools and the technologies.

7) Ability to write efficient, readable and maintable scripts

8) Experience with Jenkins, Travis cI, circleci or Gitlab cI/CD

Describe the managerial skills you have acquired (in terms of planning, leadership, team work, behaviour, workmanship, productive use of time, weekly improvement in competencies, goal setting, decision making, performance analysis, etc.

→ Ability to develop and implement automation strategies aligned with business goals.

→ Leadership and management of automation teams, including resource allocation and task assignment.

→ effective communication with stakeholders, team members and customers.

→ Identification and mitigation of risks associated with automation.

→ management of automation budgets and costs.

→ continuosly improving automation process and workflows.

→ managing changes and ensuring smooth transitions.

→ Allocating resources effectively for the automation projects.

To improve communication skills in Software automation.

→ practice writing clear, consice and readable documentation, test cases and reports.

→ Lead or participate in meetings with clear agendas, active listening.

→ Give and receive feedback, using it as an oppurtanity to learn and grow.

→ Learn to explain technical concepts to non-technical stakeholders.

→ provide regular updates on automation progress, milestones and changes.

→ Be approachable and available for questions, concerns and discussions.

→ Avoid using technical jargon when communicating with non holders.

To enhance the abilities in software automation teams

→ pay attention to others ideas and opinions.

→ Express thoughts and ideas clearly and concisely.

→ engage in respectively and constructive dialogue.

→ communicate clearly and transparently with team members.

→ Be adaptable and willing to adjust to changing priorities.

→ Contribute to process improvements and suggestions.

→ participate in testing and provide the constructive feedback.

→ Address conflicts in a constructive and respectful manner.

In software automation, key technological developments include.

→ AI and ML are being used to improve automation testing, and self-healing tests.

→ cloud-based platforms are being used to provide scalable environments for automation testing.

→ Robotics process Automation tools are being used to automate repetitive tasks and processes.

→ Big Data and Analytics are being used to improve test automation decision-making and optimization.

→ AI-powered testing tools are being used to improve test automation efficiency and effectiveness.

Student Self Evaluation of the Short-Term Internship

Student Name: G.chandana

Registration No: 722128805962

Term of Internship: **From:** July 3   **To:** 8 weeks

Date of Evaluation:

Organization Name & Address: Dr.Lankapalli Bullayya college

Please rate your performance in the following areas:

Rating Scale: Letter grade of CGPA calculation to be provided

#	Area	1	2	3	4	5
1	Oral communication	1	2	3	4	5
2	Written communication	1	2	3	4	5
3	Proactiveness	1	2	3	4	5
4	Interaction ability with community	1	2	3	4	5
5	Positive Attitude	1	2	3	4	5
6	Self-confidence	1	2	3	4	5
7	Ability to learn	1	2	3	4	5
8	Work Plan and organization	1	2	3	4	5
9	Professionalism	1	2	3	4	5
10	Creativity	1	2	3	4	5
11	Quality of work done	1	2	3	4	5
12	Time Management	1	2	3	4	5
13	Understanding the Community	1	2	3	4	5
14	Achievement of Desired Outcomes	1	2	3	4	5
15	**OVERALL PERFORMANCE**	1	2	3	4	5

G.chandana

Signature of the Student

Date:

Evaluation by the Supervisor of the Intern Organization

Student Name: G.chandana

Registration No: 722128805462

Term of Internship:

From:

To: 8 weeks

Date of Evaluation:

Organization Name & Address: Dr. Lankapalli Bullayya college

Name & Address of the Supervisor with Mobile Number

Please rate the student's performance in the following areas:

Please note that your evaluation shall be done independent of the Student's self- evaluation

Rating Scale: 1 is lowest and 5 is highest rank

		1	2	3	4	5
1	Oral communication	1	2	3	4	5
2	Written communication	1	2	3	4	5
3	Proactiveness	1	2	3	4	5
4	Interaction ability with community	1	2	3	4	5
5	Positive Attitude	1	2	3	4	5
6	Self-confidence	1	2	3	4	5
7	Ability to learn	1	2	3	4	5
8	Work Plan and organization	1	2	3	4	5
9	Professionalism	1	2	3	4	5
10	Creativity	1	2	3	4	5
11	Quality of work done	1	2	3	4	5
12	Time Management	1	2	3	4	5
13	Understanding the Community	1	2	3	4	5
14	Achievement of Desired Outcomes	1	2	3	4	5
15	OVERALL PERFORMANCE	1	2	3	4	5

Signature of the Supervisor

Date:

Page No

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MARKS STATEMENT
(To be used by the Examiners)
ASSESSMENT STATEMENT

Name Of the Student: G. chandana

Programme of Study: software automating testing

Year of Study: 2024

Group: B.S.c Biotechnology

Register No/H.T. No: 7221288054 62

Name of the College: Dr. Lankapalli Bullayya college

University: Andhra University.

Sl.No	Evaluation Criterion	Maximum Marks	Marks Awarded
		10	
1.	Activity Log	30	
2.	Internship Evaluation	10	
3.	Oral Presentation	50	
	GRAND TOTAL		

Signature of the Faculty Guide

Date: