Student Details:

Name of the Student		**Sampath Naik**	
USN		**4SO21CS138**	
Semester / Section		**VIII / C**	
Name of the Internal Internship Guide		**Dr. Saumya Y M**	
Area of work		**Software Quality Assurance & Dotnet Angular FSE**	
Internship Period	**From**	**06/02/2025**	
	To	**16/05/2025**	
Duration		**Weeks:15**	**Days: 105**

Company Details:

Name of the Company	**Winman Software (P). Limited**
Address	**Winman Software India LLP** **NH-66, Kottara Chowki** **Mangaluru - 575013**
Website	**https://www.winmansoftware.com/**
Company Head	**Mr. M Srinivasa Mugeraya**
Name of the Industry Guide	**Mr. Ukshith Suvarna**
Contact No	**+91 9448369449**
Email - ID	**HR@winmansoftware.com**

Company Details:

Name of the Company	**Cognizant Technology Solutions**
Address	**Cognizant Technology Solutions** **India Pvt. Ltd. SDB 1** **Plot No. H-4, SIPCOT IT Park, Padur Post** **Siruseri, Chengalpattu District 603103** **Tamil Nadu, India**
Website	**https://www.cognizant.com/us/en**
Company Head	**Mr. Ravi Kumar S**
Name of the Industry Guide	**Mr. Santhosh Babu**

Contact No	**1-800-208-6999**
Email - ID	**inquiry@cognizant.com**

Name & Signature of the Internal Guide **Name of the External Guide**

VISION OF THE DEPARTMENT

To be recognized as a centre of excellence in computer and allied areas with quality learning and research environment.

MISSION OF THE DEPARTMENT

1. Prepare competent professionals in the field of computer and allied fields enriched with ethical values.
2. Contribute to the Socio-economic development of the country by imparting quality education in computer and Information Technology.
3. Enhance employability through skill development.

Undergraduate Programme in Computer Science and Engineering (B.E.) PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

I. To impart to students a sound foundation and ability to apply engineering fundamentals, mathematics, science and humanities necessary to formulate, analyze, design and implement engineering problems in the field of computer science.

II. To develop in students the knowledge of fundamentals of computer science and engineering to work in various related fields such as network, data, web and system engineering.

III. To develop in students the ability to work as a part of team through effective communication on multidisciplinary projects.

IV. To train students to have successful careers in computer and information technology industry that meets the needs of society enriched with professional ethics.

V. To develop in students the ability to pursue higher education and engage in research through continuous learning.

PROGRAMME OUTCOMES (POs)

By the end of the undergraduate programme in CSE, graduates will be able to:

1. **Engineering Knowledge-**Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.
2. **Problem Analysis** -Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development
3. **Design/Development of Solutions-**Design creative solutions for complex engineering problems and design/ develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required
4. **Conduct Investigations of Complex Problems** -Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions
5. **Engineering Tool Usage-**Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems
6. **The Engineer and The World-**Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment
7. **Ethics**-Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws

8. **Individual and Collaborative Team Work**-Function effectively as an individual, and as a member or leader in diverse/multidisciplinary teams
9. **Communication-**Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences
10. **Project Management and Finance-**Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments
11. **Life Long Learning**-Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change

PROGRAMME SPECIFIC OUTCOMES (PSOs)

By the end of the undergraduate programme in CSE, graduates will be able to:

1. **Entrepreneurship and Freelancing**: Understand the principles underlying entrepreneurship, freelancing and the requirements to initiate a start up in the IT or related domains.
2. **Competitive Exams**: Participate effectively in competitive examinations related to certification, career growth and admission to higher studies.

INTERNSHIP WORK PLAN

Area of Work	**Software Testing & Full Stack Development** **Java, .Net, Angular**
Internship Topic	**Full Stack Development & Software Testing Training**
Objectives of the Internship	**1. Gain practical experience in real-time web and backend development** **2. Learn modern development frameworks like React and Spring** **3. Improve team collaboration and communication skills**
Real Time Applications	1. Tax Filing Platform (Winman CA-ERP): Validated income tax and GST modules through manual testing. 2. Rental Property Management System (Cognizant): Participated in initial planning, ER modeling, and data structure setup. 3. Database Query Testing: Collaborated with SQL team to validate and optimize queries used in financial applications. 4. Test Automation (Selenium): Automated UI interactions for test modules in QA simulation. 5. ASP.NET Backend Services: Developed backend logic with ASP.NET Core and EF Core for data persistence and API design.
Expected Outcomes	1. Ability to perform manual and automated testing using industry-grade tools. 2. Proficiency in backend development with Spring, .NET Core, and database technologies. 3. Application of software design principles (SOLID) and test-driven development (TDD).

	4. Exposure to collaborative environments using Agile and Scrum methodologies.
Skills acquired during Internship	**Technical** • **Manual and Functional Testing** • **Java, Core Java, Selenium** • **SQL (Joins, Triggers, Cursors), MySQL** • **ASP.NET Core 8, Entity Framework Core** • **JUnit, Mockito (TDD)** • **Git, GitHub, Maven** • **Visual Studio, Postman** **Non-technical** • **Team collaboration** • **Communication in Agile meetings** • **Time and task management** • **Adaptability in shifting project environments**
Challenges faced during Internship	**1. Initial difficulty in understanding testing workflows and SQL collaboration processes Had to quickly adapt to new tech stacks during the transition between companies.** **2. Time management was challenging during task transitions and new topic learning.** **3. Initially struggled with understanding Entity Framework Core and testing frameworks like JUnit/Mockito.**
Any other Comments	**1. Internship offered dual exposure to QA and development roles, enriching technical depth.** **2. Improved problem-solving skills through real-time project challenges.** **3. Gained insight into teamwork and collaboration in different work settings.** **4. Enhanced understanding of industry workflows and agile practices.**

Weekly Work Plan

Week 1:

Date	06/02/2025 – 07/02/2025
Task Assigned	1. Complete onboarding at Winman Software. 2. Get familiar with internal tools like Tickets, Reminder, Task Manager, and Leave App.
Task Objective	1. Understand company regulations and software workflow. 2. Learn usage of communication and time tracking systems. 3. Build foundational knowledge for QA role.
Task Outcome	1. Successfully integrated into the company's environment. 2. Understood the structure of daily reporting and communication tools.
Brief Description of the Work (with supportive diagrams / data tables / tool descriptions etc.)	
• Explored tools like Tickets for issue reporting, Reminder for task tracking, and Task Manager for time logging. • Learned internal procedures for leave application and basic workflow.	

Week 2:

Date	10/02/2025 – 14/02/2025
Task Assigned	1. Training in manual testing techniques. 2. Learn pretesting protocols and development copy testing.
Task Objective	1. Understand functional and regression testing basics. 2. Learn to use the testing server and execute test cases. 3.
Task Outcome	1. Acquired hands-on experience in manual test case execution. 2. Gained basic understanding of pretesting rules and setups.

Brief Description of the Work (with supportive diagrams / data tables / tool descriptions etc.)

- Performed manual tests on software modules.
- Ran development copies for verification.
- Accessed testing server and validated behavior of features.

Week 3:

Date	17/02/2025 – 21/02/2025
Task Assigned	1. Continue pretesting and regression testing training.
Task Objective	1. Reinforce previous week's learning. 2. Apply test execution processes more independently.
Task Outcome	1. Built confidence in development copy handling. 2. Gained deeper insight into software functionality
Brief Description of the Work (with supportive diagrams / data tables / tool descriptions etc.)	
• Repeated pretesting and test case execution processes. • Focused on ensuring quality before major testing phases	

Week 4:

Date	24/02/2025 – 28/02/2025
Task Assigned	1. Participate in final testing procedures.
Task Objective	1. Execute detailed test cases. 2. Analyze and document issues for QA reporting
Task Outcome	1. Gained exposure to release-ready testing standards. 2. Reported bugs and provided feedback to dev team.
Brief Description of the Work (with supportive diagrams / data tables / tool descriptions etc.)	
• Documented defects and reported them via Tickets. • Participated in test result evaluations.	

Week 5:

Date	03/03/2025 – 07/03/2025
Task Assigned	1. Continue with final testing execution.
Task Objective	1. Reinforce testing documentation and analysis skills.
Task Outcome	1. Developed accuracy in functional validation. 2. Understood severity classification of bugs.
Brief Description of the Work (with supportive diagrams / data tables / tool descriptions etc.)	
• Finalized documentation of repeated issues. • Collaborated closely with supervisors for real-time defect resolution.	

Week 6:

Date	10/03/2025 – 14/03/2025
Task Assigned	1. Learn local database setup and SQL collaboration
Task Objective	1. Understand how test data interacts with backend databases. 2. Collaborate with the SQL query team.
Task Outcome	1. Set up test DB instances locally. 2. Helped create and optimize queries for validation.
Brief Description of the Work (with supportive diagrams / data tables / tool descriptions etc.)	
• Participated in backend testing involving SQL Server. • Validated data retrieval and integrity using queries.	

Week 7:

Date	17/03/2025 –21/03/2025
Task Assigned	1. Study core Java concepts. 2. Begin Selenium training for automation testing.
Task Objective	1. Learn basic programming required for automation. 2. Get introduced to automated test frameworks.
Task Outcome	1. Understood object-oriented Java fundamentals. 2. Practiced using Selenium to write basic test cases.
Brief Description of the Work (with supportive diagrams / data tables / tool descriptions etc.)	
• Explored Java syntax, loops, conditionals. • Ran sample Selenium scripts for browser automation.	

Week 8:

Date	24/03/2025 – 28/03/2025
Task Assigned	1. Continue Java and Selenium training
Task Objective	1. Deepen understanding of automated QA techniques.
Task Outcome	1. Strengthened command over Java logic. 2. Created functional Selenium test flows.
Brief Description of the Work (with supportive diagrams / data tables / tool descriptions etc.)	
• Developed test cases using Java-Selenium integration. • Focused on automated UI element interaction.	

Week 9:

Date	31/03/2025 – 4/04/2025
Task Assigned	1. Onboarding at Cognizant. 2. Get familiar with internal processes and tools.
Task Objective	1. Understand work environment and expectations.
Task Outcome	1. Accessed portals for time, tasks, and communication. 2. Settled into the Full Stack Engineering training phase.
Brief Description of the Work (with supportive diagrams / data tables / tool descriptions etc.)	
• Understood workflow and tools like Tickets, Leave App. • Joined induction sessions for project onboarding.	

Week 10:

Date	7/04/2025 – 11/04/2025
Task Assigned	1. Learn SOLID principles and OOP design.
Task Objective	1. Build scalable software components.
Task Outcome	1. Applied SOLID principles in practice examples. 2. Developed clean, modular code structure.
Brief Description of the Work (with supportive diagrams / data tables / tool descriptions etc.)	
• Worked on inheritance, encapsulation, polymorphism. • Practiced refactoring using SOLID techniques.	

Week 11:

Date	14/04/2025 – 18/04/2025
Task Assigned	1. Learn Entity Framework (EF) concepts.
Task Objective	1. Understand ORM integration in .NET
Task Outcome	1. Used EF for data access in .NET Core apps. 2. Managed schema changes via migrations.
Brief Description of the Work (with supportive diagrams / data tables / tool descriptions etc.)	
• Practiced code-first and DB-first approaches. • Queried data using LINQ and managed entities.	

Week 12:

Date	21/04/2025 – 25/04/2025
Task Assigned	1. Practice advanced SQL queries.
Task Objective	1. Perform data manipulation and analysis.
Task Outcome	1. Used joins, subqueries, and aggregates in SQL. 2. Handled real-time data validation tasks.
Brief Description of the Work (with supportive diagrams / data tables / tool descriptions etc.)	
• Wrote optimized queries for data sets. • Analyzed test data using SQL Server.	

Week 13:

Date	28/04/2025 – 2/05/2025
Task Assigned	1. Explore .NET architecture and C# enhancements.
Task Objective	1. Get comfortable with .NET 8 and C# 12 features.
Task Outcome	1. Practiced using new language features. 2. Improved understanding of .NET's evolution.
Brief Description of the Work (with supportive diagrams / data tables / tool descriptions etc.)	
• Explored microservices and cross-platform deployments. • Used primary constructors, pattern matching in C#.	

Week 14:

Date	05/05/2025 – 9/05/2025
Task Assigned	1. Completed Git course and practiced version control tasks like commit, push, and branching. 2. Integrated GitHub and uploaded sample projects. 3. Take courses on Generative AI tools.
Task Objective	1. Brush up Git fundamentals for effective version control. 2. Understand AI tools like ChatGPT and DALL·E. 3. Understand application layering using Entity, Repo, and Controller.
Task Outcome	1. Gained confidence in basic Git Commands. 2. Completed Udemy courses on Generative AI. 3. Gained skills in prompt engineering and automation.
Brief Description of the Work (with supportive diagrams / data tables / tool descriptions etc.)	
• Learned use cases for AI in development. • Applied prompt design to simulate real-world tasks.	

Week 15:

Date	12/05/2025 – 16/05/2025
Task Assigned	1. Begin project planning for Rental Property System. 2.
Task Objective	1. Identify project requirements and database schema. 2.
Task Outcome	1. Designed initial ER diagrams. 2. Mapped out key entities and relationships. 3.
Brief Description of the Work (with supportive diagrams / data tables / tool descriptions etc.)	
• Identified modules: Properties, Tenants, Payments, Maintenance. • Created project plan and architecture blueprint.	

Internship Closure Report

Write a brief Description of the internship outcomes achieved	
Internship Objectives:	1. Gain practical knowledge in software quality assurance through manual and functional testing. 2. Understand software testing lifecycle including pretesting, final testing, and defect reporting. 3. Develop skills in local database handling and SQL query collaboration for validation tasks. 4. Learn Java fundamentals and automation testing using Selenium. 5. Acquire backend development skills using .NET Core, Entity Framework, and ASP.NET Core. 6. Understand and apply object-oriented design principles (SOLID) and Agile methodologies. 7. Explore emerging technologies like Generative AI and improve team collaboration in corporate environments.
Objectives Accomplished:	1. Performed manual testing, pretesting, and final testing on tax software modules at Winman Software. 2. Identified and documented software defects and collaborated with development teams for resolution. 3. Gained hands-on experience in database testing using SQL and participated in SQL query optimization.

	4. Learned core Java concepts and automated test case development using Selenium. 5. Understood .NET architecture and developed applications using ASP.NET Core and Entity Framework. 6. Applied SOLID principles, Test-Driven Development (TDD), and created unit tests using JUnit and Mockito. 7. Participated in Agile-based team activities, onboarding sessions, ethics training, and explored Generative AI tools.
Objectives could not be Accomplished:	1. Could not work on client-side development tasks at Cognizant during the internship period. 2. Was unable to complete a full-cycle test automation suite using Selenium due to limited exposure time.
Reasons for non-accomplishment	1. Cognizant focused mainly on technical training before project assignment. 2. Shift in organization led to discontinuation of work on the earlier project.
Sills acquired during internship period	1. **Technical Skills:** Manual and Regression Testing • Java Programming and Core Java Concepts • SQL – Including Joins, Cursors, Triggers, Transactions • Local Database Management and Validation

	• Entity Framework – Code-First and DB-First Approaches • ASP.NET Core 8 – MVC Architecture, Routing, Forms • JUnit and Mockito for Unit Testing • Selenium Basics for Automation • Git for Version Control • Postman for API Testing • Agile Tools and Project Documentation 2. **Soft Skills:** Team collaboration, requirement gathering, feedback incorporation, time management
Challenges faced during internship Period	1. Adapting quickly to two distinct organizational environments (Winman and Cognizant). 2. Learning and applying software testing processes without prior QA experience. 3. Managing transitions from manual testing to full-stack development in a short span. 4. Understanding and implementing complex backend development frameworks such as ASP.NET Core and EF Core. 5. Balancing learning curves for multiple technologies while meeting ongoing deliverables. 6. Keeping pace with Agile development processes including sprints, retrospectives, and project planning meetings.

Overall Outcome of Internship Training	1. Gained a dual-experience in both software quality assurance and enterprise-grade full-stack development. 2. Built a strong foundation in manual testing practices, SQL collaboration, and backend API development. 3. Acquired proficiency in modern development tools such as ASP.NET Core, EF Core, Git, and JUnit. 4. Developed an in-depth understanding of Agile methodologies, collaborative team workflows, and structured software development. 5. Explored trending technologies like Generative AI, which broadened technical perspectives. 6. Transitioned effectively between companies and project types, enhancing adaptability and resilience. 7. Improved communication, problem-solving, and technical implementation skills, ensuring readiness for future software engineering roles.

Signature of the student with Date

FACULTY INCHARGE REMARKS

About the Company:

About Student Performance:

Signature with Date