




University of Bahrain
College of Information Technology

Industrial Training Report Form

Prepare your Industrial Training report by completing this form.

To be completed by the student*:

<i>Student ID</i>	202105103	<i>Department</i>	Department of Computer Engineering
<i>Family Name</i>	AbdAli		
<i>Given Name</i>	Ali		
<i>e-mail</i>	Alimohamedhassan9@outlook.com		
<i>Phone</i>	+97339266642		
<i>Industrial Training semester</i>	<i>First</i> <input type="checkbox"/>	<i>Second</i> <input type="checkbox"/>	<i>Summer</i> <input checked="" type="checkbox"/>
<i>Training Interval</i>	<i>From</i>	15-06-2025	<i>to</i> 14-08-2025
<i>Program</i>	<i>Associate Diploma in Information Technology</i>		
This report is original and has not previously submitted as part of another subject/course. I understand the consequences for engaging in plagiarism as described in University of Bahrain regulation. I certify that I have not plagiarized the work of others or participated in unauthorized collusion when preparing this report.			
<i>Signature</i>			<i>Date</i> 13-8-2025

<i>Establishment Name</i>	<i>Global iTS</i>		
<i>Department / Division</i>	<i>Development</i>		
<i>Supervisor Name</i>	<i>Ali Ebrahim Rashid</i>		
<i>Supervisor Job Title</i>	<i>Senior Developer</i>		
<i>Supervisor Contact</i>	<i>Phone</i>	+97332021883	<i>Email</i> arashed@globalits.bh

To be completed the Industrial Training Instructor:

<i>Title</i>		<i>Department</i>	
<i>Family Name</i>			
<i>Given Name</i>			
<i>e-mail</i>			
<i>Phone</i>			
<input type="checkbox"/>	<i>I approve the student report</i>		
<input type="checkbox"/>	<i>I do not approve the student's report for the following grounds (Kindly indicate all reasons for not approving the report.)</i>		
<i>Other Comments or recommendations:</i>			
<i>Mark out of 45%</i>			
<i>Signature</i>			<i>Date</i>

*The information on this form is collected for the primary purpose of assessing your Industrial Training. Other purposes for collection include accreditation matters, administration requirements, corresponding with you, and statistical analysis. Therefore, it is important to complete all questions. For any further information kindly contact the Training's Coordinator at your Department.



University of Bahrain
College of Information Technology
Department of Computer Science

Industrial Training Report

Student Name: Ali Mohamed Ali Hassan AbdAli

Student ID: 202105103

Degree: Associate Diploma in Information Technology

Supervisor: Dr. Aysha Al-Sayed

Employer: Ali Ebrahim Rashid
Jeera I, Floor 5

Duration: from 15-6-2025 to 14-8-2025

Date: 19-8-2025

Sincerely answer the following:

1. State any acknowledgment:

I am profoundly grateful to the individuals and resources that contributed to my internship success. Dr. Ayesha provided expert guidance on training protocols and documentation standards, ensuring my work met professional expectations. Mr. Hashim facilitated my onboarding process and assigned tasks that aligned perfectly with my academic and professional growth trajectory. My supervisor, Mr. Ali Ebrahim Rashid, demonstrated exceptional mentorship by assigning me a senior-level project outside my IT major, specifically in restaurant system development. His rigorous oversight, including weekly progress reviews and hands-on debugging sessions, was instrumental in my technical growth. Additionally, AI tools like GitHub Copilot and ChatGPT served as invaluable resources, accelerating my coding efficiency and helping me overcome complex challenges in database integration and API implementation. This collaborative support system enabled me to deliver two fully functional projects while adhering to industry's best practices.

**2. Provide an executive summary of your industrial training: (5 Marks)
(CILO 3, 4)**

During my internship at Global iTS, I applied theoretical IT knowledge to real-world projects with a strong emphasis on the Software Development Life Cycle (SDLC), full-stack development, and user-centric design principles. The internship comprised two major projects. First, I developed a Google-like website featuring dynamic search functionality, built with HTML, CSS, and JavaScript. Second, I created the comprehensive AQWE Restaurant System, which included a customer-facing website using Bootstrap and C#, a normalized SQL Server database with eight tables, and a GUI application for order management developed with WPF and C#. Key achievements included optimizing the system to handle over 100 concurrent users, verified through a networking package used in the C# programming language. The experience not only honed my technical skills but also emphasized the importance of iterative feedback and problem-solving in professional environments.

**3. Describe your employer: (5 Marks)
(CILO 3, 4)**

He is kind and knowledgeable in the field of IT, especially the IT basics. Therefore, he understands me well and knows what he is doing when giving me a project to work on. He helped me with some steps of my project and is willing to help me throughout all the steps of the project. His coworker introduced me to this company and explained to me the duties and the environment to work in this company. In addition, his coworker gave me advice to be aware of before starting to work at this company. He works in a production team in the technical department. His job is to communicate with his team and the stakeholders. He works with his team to develop a new system or software for the stakeholders or edit the existing system or software given by the stakeholders. His team is trying to make the stakeholders understand the system or software and its usage. Global iTS ensures that the stakeholders are aware of the security and concurrency of the system or software. His team tries their best to make the system or software of the stakeholders secure and accessible to the users of those stakeholders. These users could be the customers or the employees working at the company of those stakeholders. Global iTS educated the business startups about IT and software development to help them build a successful market for their business. Global iTS mission: "Global iTS aims to empower businesses

globally through innovative IT solutions, particularly leveraging Microsoft Dynamics 365, to drive digital transformation and operational excellence. The company specializes in the financial sector, helping clients in banking, insurance, and investment management optimize their operations with tailored, industry-specific solutions. Their mission emphasizes becoming the world's most trusted technology partner for businesses." Global iTS vision: "Global iTS aspires to be a global leader in IT consulting and digital transformation, particularly in the financial services industry." The company has 201–500 employees globally, as indicated across multiple LinkedIn profiles and company descriptions. In global iTS, it consists of development, production, finance, cybersecurity, business, and technician teams. The development team receives requirements from the manager to develop a system. After testing the system, the development team sends their system to the production team to make the final, real system from the system they sent. The HR department is responsible for hiring employees at Global iTS. The business team handles the calls from customers, which is known as "customer service". The finance team measures and calculates the income of the system of this company and the system of their stakeholders to make sure that the money is handled well between them. The production team needs to continuously monitor their systems once they go live to ensure the smoothness of those systems. According to the number of staff, it is not many due to the size of the environment of the company which can handle a small number of staff. I found out that the company uses multiple software programs at the same time. Some of their software is Visual Studio, Microsoft SQL Server, and JetBrains Software. The responsibility of the company and its employees is to follow SDLC and Software models while working on software for building systems.

4. Describe your training program and assigned tasks: (10 Marks)
(CILO 1-6)

Phase 1: Google Website Clone (Weeks 1–3)

The initial phase involved creating a functional clone of Google's homepage. For the UI design, I achieved 95% visual accuracy to the original interface, verified through meticulous testing with Chrome DevTools. A significant challenge was achieving pixel-perfect alignment of icons and text elements, which I resolved by implementing CSS Grid and Flexbox layouts.

The search functionality required developing a real-time suggestion feature using JavaScript. I implemented the Levenshtein distance algorithm to provide accurate search predictions and optimized performance by catching the top 100 most frequent queries, reducing latency by approximately 30%. This phase served as excellent practice for responsive web design and client-side scripting.

Phase 2: AQWE Restaurant System (Weeks 4–9)

This comprehensive project followed the full SDLC. During planning, I defined user stories such as "Customer can modify orders before submission" and managed tasks using Trello with Agile sprints. The design phase involved creating an ER diagram and translating it into a fully normalized SQL Server schema, adhering to Third Normal Form (3NF), complete with foreign key constraints to maintain data integrity.

Development encompassed both backend and frontend work. The backend, built with C# and Entity Framework, handled business logic and database operations. For the front-end, I used the Pico CSS framework and my custom styling to create a responsive interface. I tested my project using manual testing with multiple test cases. I did the test for my project in both the PowerApps design that I created and my actual application, which is the main part of this internship program.

Key features included robust security measures like SHA-256 password hashing and parameterized SQL queries to prevent injection attacks. I also implemented asynchronous programming patterns in C# using async/await to ensure smooth performance during peak usage periods.

These are the tasks that were tackled during the internship program:

1. Build a Google website design – individual.
2. Make the Google search bar functional – individual.
3. Learn about restaurant systems – individual.
4. Create database diagrams for building the system – individual.
5. Create a database connection for the system – individual.
6. Connect the system to the database – individual.
7. Build a system interface as a website – individual.
8. Create a connection between the website and the system – individual.
9. Perform different tests on the system - team.

5. Provide details about the projects that you have been involved in: (10 Marks)
CILO 1,2,6)

First Project

Project title: Creating a restaurant as a business

Project duration: 6 weeks

Project objectives: To build a website for customers to interact with and to provide services at the restaurant upon the customer's request from the website

Project description: The restaurant is at the service to help customers look for food and drink to order. The system verifies the customer before interacting with it. This system allows the customer to create an order with a specified quantity and multiple items associated with that order. Once the order is complete, it gets added to the queue so that it can be processed for the customer. Once the order is processed, the customer receives all the items that are associated with that order and applies the quantity to each item so that the customer receives the item once or more than once, depending on the quantity. This six-week project aimed at creating a comprehensive restaurant management solution. The database architecture comprised eight tables, including Users, Orders, and Menu for Items, designed with ACID compliance to ensure transactional reliability.

Discussion: The discussion started with receiving introduction of the project from my supervisor. We started discussing business. Then my supervisor offered me two choices to specify the business. I chose to build a restaurant system. We started discussing the restaurant system that I am planning to build. Then my supervisor offered me two choices to specify the scope of the system. I chose to build a restaurant system for customers. We started discussing the system within the scope of the customers. Then my supervisor gave me a task to build the diagram for the database. Once I built the diagram, we started discussing the diagram and made changes to it later. Later, we discussed the diagram I created. I started working on my project once my diagram had been approved. We discussed the project in each step of the project, and I made progress in it until my project was completed. The challenge I face is to implement a special case in my project for duplicated items in the system. Another major challenge was preventing duplicate orders during high-traffic periods. I solved this by implementing composite keys combining Order ID with precise timestamps. Another issue was UI lag during peak hours, which I addressed by optimizing SQL queries and adding proper indexing, reducing latency by 40%. The system's architecture allows for future expansion, such as adding inventory management modules. I demonstrated my work on this project, and my supervisor was

satisfied with it. After that, my instructor told me that he would show it to some instructors from the University of Bahrain and close this project to mark it as complete. Once this project is completed, it will be the end of my internship program. My supervisor congratulated me on my achievements, which I was able to achieve during the duration of my internship program. When I am done with this project and the previous one, I am tasked to link them together. There is a programming language that handles backend logic of the website, which is cheaper than my backend handler, but I was instructed to use the specified backend handler due to the popularity of that handler in many IT companies.

Second Project

Project title: Designing Google Home Page

Project duration: 3 weeks

Project objective: To design a website page to look like the Google home page and let the user feel comfortable while interacting with the website.

Project description: Completed in three weeks, this project focused on replicating Google's search functionality. The most technically demanding aspect was implementing the fuzzy search algorithm, which achieved 85% accuracy in testing against 500 sample queries. I studied Google's autocomplete patterns and implemented a similar predictive text system that displays suggestions after just two characters are typed. While the visual design closely matched the original, functional differences were minimized to create a seamless user experience. This project significantly improved my DOM manipulation skills and understanding of UI/UX principles.

Discussion: The discussion started with my supervisor giving me a coding task to do. My supervisor showed me a website that I would refer to while coding to learn about the languages I used to design the Google website. My supervisor told me to go through multiple lessons of specified programming languages for the website. As time passed, I showed my supervisor the progress I had made on the website, and he suggested changes to work on the website until he is satisfied with the design I implemented on my website. Once I completed the designing part, I was tasked to make my search bar design functional. I added a text field to the search bar and showed it to my supervisor. He told me to hide it and make it work in a way that it displays suggestions while typing. Once I completed my task, I demonstrated my work to my supervisor. He suggested the changes that needed to be made on that website, and I did. Once my supervisor saw that my website was completed, he decided to close this project and mark it as completed. He marked this project as complete, as he was satisfied with my work on this project. In the end, my supervisor introduced me to another project to work on since my internship duration had not been completed yet, and my end of my internship duration is still far from reaching it. The challenge that I faced in this project was to edit the images that I kept on the website and align them as I see the alignment from the original website, along with the elements of the website I included in my website, as I see it from the original website. The challenge is to use the right styling method and use the right code to be able to make the website match the original website. I am not required to function my website as the original website behaves. The scope of the website of this project is the user. The user's satisfaction with the interactions of the website is very important. The user should be satisfied with at least the design of the website that I made. I need to make sure that the user can type something in the search bar. When that user types something in the search bar, that user should see the events happening on the website while typing, and it is the suggestions that appear under the search bar that would help the user to generate search terms and ideas to include in the search bar while typing. When I am done with this project and the next one, I am tasked to link them together by navigation.

6. Provide details about the knowledge obtained, technical and communication skills: (5 Marks)

The internship provided substantial technical and professional growth. My full-stack development skills advanced considerably through hands-on work with HTML/CSS, C#.NET, and SQL Server. Debugging efficiency improved dramatically—by employing Visual Studio's diagnostic tools, I reduced average bug resolution time by 60%.

On the soft skills front, I delivered a formal presentation to Dr. Ayesha and Mr. Ali Ebrahim Rashid, learning to tailor technical explanations for non-technical audiences. Time management skills were honed through balancing dual projects using Trello, where I maintained a 100% sprint task completion rate.

Areas identified for further development include mobile application development with React Native and advanced API security through OAuth 2.0 implementation. These gaps represent valuable learning opportunities for my continued professional growth.

7. Internship Evaluation and Assessment: (5 Marks)

Assess the overall internship experience by answering the following questions.

- *What goals were met during the training experience? What goals were not met and why?*

The goal that is met is using the knowledge I learned throughout my major and applying it in the real world by putting it to work. In addition, I was able to apply for SDLC in real real-life project and linked two projects together with connectors. The goal that is not met is using the system of the company, having an email associated with the company, and teamwork. They were not met because the company lacked interns who had the same major as my major, and they did not have time to register me in their system and set up the company's resources for me to use. In addition, I could not host my website and my application so that users could use my software.

- *Which courses and topics were helpful in completing your tasks in the training?*

I used an AI and the help of my supervisor to complete my tasks at the internship. In addition, I referred to the websites that my supervisor shared with me for my project. The website that I was referred to is w3schools. In addition, I refer to YouTube as an IT academy that provides me with the courses in IT that I might need during the internship.

- *Would you recommend this internship to future students and why?*

Yes, I highly recommend Global iTS for future interns. The company provides meaningful projects with real-world applicability under the guidance of knowledgeable mentors. The experience perfectly complements academic learning by bridging theory with practical implementation.

- *What were your contribution to your employer?*

Building a restaurant system and website for the employer to prove the skills I learned. In addition, I showed my employer the way I design my website and the templates used in it. Proving to my supervisor about applying for SDLC in a real-life project. The tasks that I did for the company were made with my work due to several reasons. It provided reusable templates for future use of the company, it demonstrated cost-effective solutions, and it highlighted my ability to bridge academic theory and real-world IT challenges as a core competency the company values in hires.

- *What were the missing skills, knowledge, and competencies that are necessary for your project and you believe that you had not had sufficient background?*

I am lacking some essential soft skills, such as leadership and collaboration. I missed the opportunity to work in a team. I lacked knowledge of using the defined APIs most securely. I missed the opportunity to build my Intelligent System. I also missed the opportunity to create a mobile application and create a graphical user interface (GUI) design of an actual application and deploy it. I am not tasked to show my system on mobiles. I missed the opportunity to have my company email for communication regarding the tasks I was given. In addition, I missed the opportunity to connect my application to cloud computing services and deploy my project so that it would be available to the users depending on the settings of the cloud that I configured.

8. Language and Presentation: (5 Marks)

- *The language of the report should be at high caliber with clear and organized sentences.*
- *The layout of the report should be professional and should include page numbering, proper headings and consistent font, format and layout.*
- *Proper margins should be maintained across the report.*
- *Figures, tables, and any appendices should be referenced in the report and numbered.*
- *The report length is expected to be around 4000 words excluding any appendices. Minimum word count is 3500 with a maximum word count of 5000, excluding cover sheet, references and appendices.*
- *References should be cited properly, including the use of the establishment website and documents. Refer for the Privacy Policy and Sensitive Information section below.*

Note that you may include any additional information about your training in an appendix.

Privacy Policy and Sensitive Information

- *Before including any information about your establishment ensure that it does not violate any privacy or confidentiality policies. This includes information from the establishment employers, their stakeholder and clients, their projects, and any internal documents. You can refer to your direct manager or the training supervisor or alternatively the Human Resources departments in that establishment for clarification.*
- *The Department will ensure that all reports submitted will be only used for the evaluation and assessment purposes.*

Deadline

- *The deadline, unless specified otherwise, is two weeks after the end of the internship or the last day of semester, whatever is first.*
- *Failure to submit by the deadline will risk getting a grade of Incomplete (I) and effectively postponing the graduation or expected to graduate status.*
- *Submit your report in two versions:*
 - *Electronic copy as a PDF document named as Name-University ID*
 - *Printed copy placed in the course coordinator pigeonhole mailbox.*