

Internship Report

Swe-420

Submitted by

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Software Engineering, IICT, SUST



Letter of Transmittal

14 July, 2022

The Director

Institute of Information and Communication Technology,
Shahjalal University of Science & Technology

Subject: Letter of Transmittal

Sir, I am pleased to submit the report of my internship at **Orbitax Bangladesh Limited**.

This report details my learning, activities and experiences during my internship period, starting from September 1st, 2021 to February 28, 2022. I was supervised by **Shamim Ahsan Shaon**, Senior Software Engineer.

I believe this report will be quite interesting and fulfill your expectations. I have tried to give my best efforts to prepare a comprehensive report. I will be grateful if you accept my report and your kind consideration will be highly appreciated.

Sincerely,

Md. Naim Uddin Sarker

Reg Number : 2017831022

Department of Software Engineering

IICT, Shahjalal University of Science and Technology.

Letter of Endorsement

To Whom It May Concern

Subject: Approval of the Report

This letter is to certify that all the information mentioned in this document is true and not confidential to the company. The projects mentioned here have had successful involvement of **Md. Naim Uddin Sarker**, Institute of Information and Communication Technology, Shahjalal University of Science and Technology.

I wish him all the best and hope that he will lead a successful career.

Internship Supervisors,



Hasan Shahriar Masud
Chief Technology Officer
Orbitax Limited



Shamim Ahsan Shaon
Senior Software Engineer
Orbitax Limited

Acknowledgment

First I am grateful to the almighty Allah for giving me the ability to work hard successfully.

Then, I would like to thank my Institute, Institute of Information and Communication Technology, SUST for arranging the internship program for me. I am also grateful to Orbitax Limited for recruiting me as an intern.

I am extremely grateful to the CTO of Orbitax Limited, **Hasan Shahriar Masud** for being a source of inspiration and for his constant support in the internship.

I take this opportunity to express my profound gratitude and deep regard to my Team Leader **Shamim Ahsan Shaon**, Senior Software Engineer for guidance, monitoring, and constant encouragement throughout this internship. The blessing, help, and guidance given by him from time to time shall carry me a long way in the journey of life. I am obliged to all my Team members, for the valuable information provided by them in their respective fields. I am grateful for their cooperation during the period of my internship. I'm thankful to them for their continual constructive criticism and invaluable suggestions and help, which benefited me a lot at my internship.

I'm thankful to them who are not mentioned here, for their continual constructive and invaluable suggestions and help, which benefited me a lot at my internship.

Abstract

The internship report serves the purpose to record the details of my industrial training which was conducted in Orbitax Bangladesh Limited. This report will cover the details of my internship period in the Software Engineering field for a duration of six months which began from 1st September, 2021 till 28 February, 2022.

Students of Software Engineering in IICT, SUST are required to undergo an industrial training period for six months. The objective of having this industrial training is to give exposure to the student to real working life, and enable the student to develop a deeper understanding of the course which they are undertaking.

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Chapter 1: Introduction

1.1 Introduction

The internship is the process of on-the-job training, which is particularly beneficial for students with majors in technical courses. Institute of Information and Communication Technology (IICT) provides that glorious opportunity to their students of having an internship within their bachelor program. IICT always emphasizes industry orientation in academic study. For this purpose industry, people are invited to IICT to talk about their companies and experiences, often some technical courses are entirely conducted by them. The six months internship program is another, possibly most effective, way of achieving industry orientation. Internship helps the students to link-up their academic experience with industry practices. I have tried my best to combine both. I hope I'm successful, the future semesters of my degree will prove the fact of success and failure. The company I was sent for an internship is Orbitax Bangladesh Limited. It is one of the leading software companies in Bangladesh.

1.2 Objective

Internship has also some specific and defined aims. Some key points are:

- Getting familiar with the corporate environment
- Gain professional attitude, maturity and judgment
- Hands on experience

1.3 Scope

This report gives an insight into the experience that I faced in my workplace at Orbitax Bangladesh Limited. It also provides a brief description of Orbitax Limited for students who are interested in Orbitax for their professional growth. This report will also give a brief overview of Orbitax Bangladesh Limited to the students of IICT who will continue the internship program at Orbitax in the future. It also will represent most of the major technologies used for developing software in Bangladesh. So, it will help new learners to avoid confusion about ongoing technologies in Bangladesh.

Chapter 2: Company Profile

2.1 About Obitax Limited

Orbitax is committed to providing high value, low-cost tax research, management & planning solutions.

Their vision is to deliver the extensive international tax practice experience of Orbitax team members and partners through easy to use software. We recognize that international tax work is complex, and must be done by trained professionals.

Their tools are designed to help expert users by reducing time/effort on repetitive, routine tasks, carry out exhaustive research, use templates of tried and tested tax strategies and explore scenarios, enabling large productivity gains.

Orbitax introduces users to each product category through online tools accessible through tax content portals traditionally used by tax professionals. Orbitax also develops ancillary tools to help users derive better value from the tax content and software they already own.

2.2 Company Type

The business Orbitax Bangladesh Limited is product-based. Product-based businesses are those that develop their products and provide them to customers. They will look for candidates who have good technical and domain knowledge and are familiar with the latest tools and technology.

In product-based companies, you work on the same product for years while in service-based companies it will be mostly for some months or years in rare cases. In most cases, the product-based companies consider their employees as an asset for their company as losing them will be a great loss as it will take more time for a new employee to expertise their product. Product-based companies will consider the quality as the King while the service-based considers the client as King. There you will have more opportunities for learning as you will have a new problem and write code from scratch. They won't be that strict on timings, you just have to do your work.

2.3 Services

In today's world, every organization depends heavily on technology to keep business operations connected, drive revenue, and support ever-growing customer demands. Undoubtedly, Information Technology is the key to manage technology and it spans a wide variety of areas that include but are not limited to things such as computer software, information systems, programming languages, database management systems, networking, etc. Keeping these in mind Orbitax Bangladesh Limited provides an impressive tally of services and solutions. It provides the following services that are described below:

2.3.1 Ideation, Graphics, and Interaction Design

Orbitax Bangladesh Limited generates initial ideas with the help of its tax specialist team and business analysis team and the head of the development team. Then they start working on those ideas. Its design team helps developers through digital design and strategy maze. It works through the early stages of a project. Over the years they have become very good at this art of making the complex simple.

2.3.2 Software Development

Orbitax Limited teams build custom software- related to high value, low-cost tax research, management & planning. Orbitaxians have worked with many technology platforms and have collaborated with many teams over the seas.

2.3.3 Software Quality Assurance

Every great software has bugs in its initial stage. SQA team finds out the bugs and sends the list to the development team for further development. This is a continuous process of development and by the passage of time, the software turns into great software. Great design and development go nowhere without great quality. Orbitax has an experienced software quality assurance team that works for the betterment of the software being developed. Orbitax integrated quality assurance approach incorporates all aspects of agile and lean development with the stability and reliability of the traditional SQA process.

Orbitax believes software quality assurance is only possible with a mixed set of procedures that should involve all members of the team collaborating with a

dedicated team of SQA professionals.

Orbitax follows Agile SQA recipe every day to complete QA:

- Unit Tests at the developer's desk
- Integration tests at the SQA desk
- Regression at the automation server

2.3.4 Analyze Your Global Footprint

Populate your global footprint and track law changes relevant to you, including enacted current, future enacted and proposed changes. Changes can be easily made in current and future fiscal years as your global footprint evolves.

2.3.5 Receive Custom Reports and Alerts

See at a glance what the latest changes are, what their effective date is and any associated references including news articles. Receive notifications directly to your inbox when new changes are published.

2.3.6 Distribute Reports Automatically

Send custom reports to key stakeholders, including automatic quarterly change report summaries and email alerts at any chosen frequency.

2.3.7 Powerful and Intuitive Solution

Orbitax Change Reports is a simple-to-use, secure, web-based tax solution. There's nothing to download or install. Set up global footprints, custom reports and email notifications with just a few clicks.

2.4 Location and Physical Layout

The headquarter of Orbitax Bangladesh Limited is located in San Francisco, California. Its office is located at 113 Kazi Nazrul Islam Ave, Dhaka 1205.

- Orbitax office building is situated in an industrial area. But the structure of the building is like a residence building. So, the employees work in a domestic environment in Orbitax.
- The office consists of the 1st, 3rd and 7th floor. Orbitax is planning to expand its office area by including the 6th floor of the building.
- It has a large indoor playground on the 1st floor and a pool room on the 7th floor
- It has a nice dining room on the 3rd floor of the building.
- There are kitchens on each floor of the office.
- There are gymnasium instruments on the 7th floor where employees can exercise and keep their body fit.

2.5 Human Resources

Orbitax has more than 60 permanent employees at this moment and they are planning to recruit more as they have more plans to produce quality products. Since the beginning, Orbitax has grown in the number of resources and production every year. Orbitax doesn't hire developers, designers, or QA engineers; Orbitax hires people who solve problems. And it hires only the best. Orbitax runs regular training and review sessions to keep it on the top. And the culture of constructive criticism, learning, and sharing expands Orbitax horizons and keeps it level headed.

2.6 Orbitax Products

- **Orbitax Change Report Tracker:**

Orbitax Change Reports Tracker is a comprehensive solution for tracking worldwide tax law changes. With coverage of over 195 countries, and a broad range of features (including global footprint analysis, multiple user access, custom reports, push notifications and more), Orbitax CRT is a must-have tool to navigate the constantly changing landscape of international tax, enabling users to effectively plan for the years to come. Orbitax Change Reports Tracker is the only solution that can truly emulate a customer's global footprint and allow for important tax changes to be shared automatically to key contacts and stakeholders.

- **International Tax Research and Compliance Expert(ITRCE):**

Orbitax International Tax Research and Compliance Expert (ITRCE) provides a comprehensive analysis of tax regimes with embedded tools to put your research into action and is your one-stop-shop for all your essential international tax research and compliance needs, including cross border tax rates, tax treaties, daily tax news updates, country analysis and world-wide tax compliance forms in English. It also provides powerful real-time translation of any foreign documents with automatic foreign exchange conversion for translating foreign financial statements.

- **Orbitax Essential International Tax Solutions (Essentials)**

In addition to research and compliance material, Orbitax Essential International Tax Solutions allows companies to create their entity charts (visual and table format) and perform worldwide tax planning and multiyear forecasting calculations.

- **FX Rates**

Its FX Rates feature allows the client to search for and download foreign exchange rates for 160 reporting currencies for any given tax period. Choose between Spot Rates, Tax Year Rates, and Period Rates including simple average, 12-month weighted average and 13-month weighted average rates, and export into Excel for a local copy. Our certified rates are updated daily and offer historical rates results dating back to 1995.

- **Country Analysis**

Orbitax's Country Analysis offers detailed tax guidance for companies doing business in over 100 countries, including:

Country Snapshots providing concise compilations of key tax facts; Country Summaries describing key tax rules relevant for multinational companies doing business outside their home country; and Country Chapters offering in-depth practical tax guidance focusing on all aspects of the tax system that are of relevance to cross-border business and international structuring. Topics covered include forms of doing business, corporate and withholding tax rules for resident and nonresident businesses, anti-avoidance rules, indirect tax rules, and others.

- **Tax Forms and Translation :**

Orbitax's Forms tool provides key tax forms translated into English for over 80 countries, including corporate tax return forms, treaty benefit claim forms, withholding tax reporting forms, and VAT forms. The Forms tool also provides powerful built-in document translation to translate any document (electronic or scanned) into English or any other language, as well as currency conversion, and compare features for translated documents.

- **Worldwide Tax Treaties:**

Use Orbitax's Worldwide Tax Treaties tool to search our repository of worldwide tax treaties (in English), including amending protocols and consolidated versions as amended. The tool also provides news on treaty developments, the status of current and pending treaties, and treaty withholding tax rates, as well as relevant treaty material including OECD, UN and US Models, relevant EU Directives, Technical Explanations, and more.

- **DAC6 Reporter**

DAC6 is not just about aggressive tax planning. The Directive has been drafted as such that it also applies to standard transactions with no particular tax motive. This means that ordinary transactions such as cross-border leasing, intercompany royalty payments, securitization structures, certain types of reinsurance, and many standard group corporate funding structures may be reportable.

- **Entity Tracker and Designer**

Track an MNE's global footprint, including entities and cross border transactions.

- **Due Date Tracker**

Automatic due date obligation tracker for all your filing needs to be tied directly to your global footprint

- **WHT Implementer**

End-to-End Solution for determining and completing the required forms for cross-border transactions

- **Change Reports Tracker**

Worldwide tax law change tracker for 195 countries and jurisdictions with custom alerts

- **Excel Add-Ins**

Pull calculations, rates, and entity data directly into Microsoft® Excel
And many more...

Chapter 3: My Project Involvement

3.1 Converting .Net codebase into Golang

We were a team of 9 members, 6 interns who are classmates and Masud bhai(CTO, Orbitax), Shaon bhai(Senior Software Engineer, Orbitax) And Plabon bhai(Associate Software Engineer, Orbitax) guided us through our six months journey. It was a great experience working with them.

In this project we tried to convert some of Orbitax .net codebase into Golang for testing purposes.

As this project's information was under NDA so we will talk about its basic overview.

3.1.1 Overview

We converted some of the Orbitax .net codebase into Golang for testing purposes, how fast the work can be done using Golang. We followed the .net structure and naming convention so that others can easily understand the code. We compared the response time between .net codebase and golang. In golang we were getting almost 2 to 3 times faster response which was very impressive.

3.1.2 Team

We all were assigned to the same project. But we do work there as a pair. I was assigned with my batchmate Moshiur Rahman Autul for this project. We work on this project following the pair programming methodology. Without his help, I could not be involved with the project successfully. After 2 or 3 months he was moved to another team and I worked with my other team mates.

3.1.3 R&D

We started working with R&D. Whenever we had to choose any technology/framework, we did research on the technology to find the best framework to use.

- At first we researched different http frameworks. After comparing different packages like Gin, Echo, Beego, Gorilla mux, we chose the Gin framework to build rest api.
- We did some research to select our Jwt package. Among Go Joose, Lestrat, JWT-GO, we selected JWT-Go as it was very popular and more secure than the other packages.
- I had performed research on thread principle in Go. Thread principle is a feature of dotNet which means we can store data in global storage of the thread and can access it anytime from anywhere by calling Thread.CurrentPrinciple. After my research I found that Go does not support the Thread principle. Golang has a strong garbage collection which attempts to reclaim the memory that was allocated by the program but is no longer referenced. Even Golang doesn't allow to compile a program if there are any unused variables.

3.1.4 Technology

What technology we used to complete this project are given below:

Technologies:

1. Golang
2. Gin
3. JWT
4. Rabbitmq
5. Git
6. MongoDB
7. And various other packages

Tools :

1. Sourcetree
2. Bitbucket
3. Jira
4. Visual Studio Code
5. Goland
6. Postman

3.1.5 Features I Worked

I worked with rest api with Gin, Jwt authentication and platform command consumers in this project. At the very first I was told to create rest apis. After doing R&D we have selected the Gin framework for creating rest api though we moved out the rest api part later. I have worked with JWT authentication & authorization. I used the GO JWT package to generate a token. During Login we generated the token with some of the user's information. Later on during authorization we extracted the token and checked if the token was valid or not. Later on I worked in platform command consumers. Orbitax has more than 30 api services. I worked in Project api service and Collaboration api service. Orbitax follows the publisher-subscriber pattern. I have converted the command consumer base, command service, platform command consumer etc. Command base consumes the event/command published in rabbitmq. Later on based on the command name, the received event/command passed to their specific command consumer(like : CreateProjectCommandConsumer...). And after performing all the business logic the event/command published a platformCommandResponse in rabbitmq.

3.1.5.1 JWT Authentication & Authorization

I have worked with JWT authentication & authorization. I used the GO JWT package to generate a token. During Login we generated the token with some of the user's information. Later on during authorization we extracted the token and checked if the token was valid or not. If the token is valid then we allow the user to access different routes.

3.1.5.2 Project Api

Due to the NDA agreement I can not discuss the business logic here though I will try to give a flash overview of what I did. I have worked in CreateProject and CreateDefault project methods along with my team mate Autul. After consuming the platform command, according to the command name we passed the command into the specific consumer then the consumer performs the business logic and publishes a platformCommandResponse event.

1. **CreateProject:** This method handles the CreateProject Command. When a user requests a create project request then the request will be published in rabbitmq and then the command consumer base consumes the command and sends it to CreateProjectCommandConsumer. After performing the business it publishes a platformCommandResponse. Thus a project was created.
2. **Create Default Project:** When trying to load the project section in UI if there is no project already created then a default project will be created. It creates a very basic project with some default values.

3.1.5.3 Collaboration Api

In the collaboration api I worked with Shaswata, Souhardya & Toha. We have to create a lot of models in this api. I personally worked in collaborationService, trackActivityCommandConsumer, eyNotification sender, platformProxy etc. Due to NDA agreement I am unable to discuss furthermore about this api.

3.1.6 Challenges

- The challenges I faced was to cope up with the huge codebase of orbitax. As I never worked with dotNet it was challenging for me to understand the codebase of dotNet and start converting it.
- I faced an issue while I was trying to verify Orbitax's JWT token. I found that the signing method Orbitax was using was not registered in the JWT-GO package which we were using to create the JWT token. I searched on the internet but I didn't find anything. Then I started to read the Jwt packages. After reading the whole JWT-GO package code I found the solution which was very satisfying for me.

3.2 Orbitax Website(Laravel)

This was a live project. After finishing the Golang project in 4 months, my team leader assigned me to this team.

3.2.1 Overview

This is a public site of Orbitax to give any user a detailed understanding of what services Orbitax provides. The old website does not have sufficient features to fulfill the purpose of the site. So Orbitax decided to redesign the site with new features and modern technologies. As It was a live project I can not describe the code or architecture of the project because of NDA.

3.2.2 Team

As it was a live project there were different teams for different work.

- **Development Team** : The development team was responsible for developing the entire website. Mozahid vai, Autul and Jahid were working in the team and I was added after finishing my work in the Golang team.
- **Business Team**: This team was responsible for understanding the client requirements and describing those requirements to developers.
- **SQA Team**: This team checks the quality and searches for bugs in the website then they report the issues to developers.
- **Creative Team**: This team was responsible for maintaining the UI styles.
- **DevOps Team**: This team was responsible for deploying the website on the server.

Though I worked in the development team I got the chance to interact with other teams.

3.2.3 Technologies & Tools

Technologies:

- Laravel
- Javascript

- Html, Css
- Git
- SEO

Tools:

- Sourcetree
- Bitbucket
- Jira
- Visual Studio Code
- PhpStorm
- Visual Studio 2019
- Postman
- Slack
- Google Rich Result

3.2.4 Features I worked:

- **R&D on Search Engine Optimization:** In this project at first I was assigned to research how SEO works for protected pages. On this site there was some paid content. So users have to subscribe to read those paid content. But for search engine optimization we have to give the information to the crawler. After researching on this topic for 3 to 4 days I found that we can use JSON-LD for the protected data so that the crawler finds the information of the page. JSON-LD is almost a json formatted data structure through which we can set the title, keywords, description of the page. And Google crawler is able to read the JSON-LD so the crawler will get the page information.
- **Website Pages:** When I joined this team a lot of pages were already built by others. Though I have worked on some of the pages.
 - Home Page
 - Tax News
 - Withholding Tax Rates
 - Archive Page
 - Subscribe Page

I did some get operations and fixed the bug which was assigned to me. I have created the subscribe page and later on the UI team restyled the page.

3.2.5 Challenges

As I have never worked with PHP and Laravel it was uncomfortable for me to work at the beginning. But with the help of other teammates I got my confidence back within a few days.

Moreover I was assigned to this project when the project was almost 80% completed so it was difficult for me to understand the business logics, code structure. And it was more challenging as I was almost learning and doing codes in Laravel.

Chapter 4: Professional Growth

4.1 Technology and Tools I Learned

As Orbitax develops its tools in various technologies. As an intern, I saw them very closely and I gradually started to desire to learn them. And I have to learn them.

4.1.1 Tools

Programming tools make development easier. In my Intern at Orbitax I have to use the following tools in my daily works:

- Goland
- Visual Studio Code
- Visual Studio 2019
- Postman
- PhpStorm
- Sourcetree
- Bitbucket
- Jira
- Slack
- Google Rich Result

4.1.2 Technologies

At Orbitax I had the chance to work with Golang and Laravel.

4.1.2.1 Golang

Golang, also known as GO is a statically typed, compiled programming language designed at Google by Robert Griesemer, Rob Pike, and Ken Thompson. Go provides inbuilt support for garbage collection, support of concurrency. Golang maintains a single style/syntax for coding which is very helpful to read and understand others' code. Some feature of Golang:

- Easy to learn
- Fast execution
- Inbuilt concurrency support using goroutine and channel

- Automatic garbage collection
- Easy syntax and as go format the code in a specific syntax is easy to understand others code.

4.1.2.2 Laravel

Laravel is an open source PHP framework, which is robust and easy to understand. It follows a model-view-controller(MVC) architecture. Some of the features of Laravel are :

- Authentication
- MVC architecture
- Effective ORM
- Modularity
- Routing
- Template Engine
- Testability

and so on.

4.2 Concepts I have learned

During my six months internship I learned a lot of new topics. I am mentioning them below

4.2.1 REST :

REST, or REpresentational State Transfer, is an architectural style for providing standards between computer systems on the web, making it easier for systems to communicate with each other. REST-compliant systems, often called RESTful systems.

Architectural constraints of REST -

- Separation of client and server

- Stateless
- Cacheable
- Consistent interface: one of the main feature of REST is the explicit use of HTTP methods.(GET, POST, PUT, PATCH, DELETE).
- Resource accessed by name

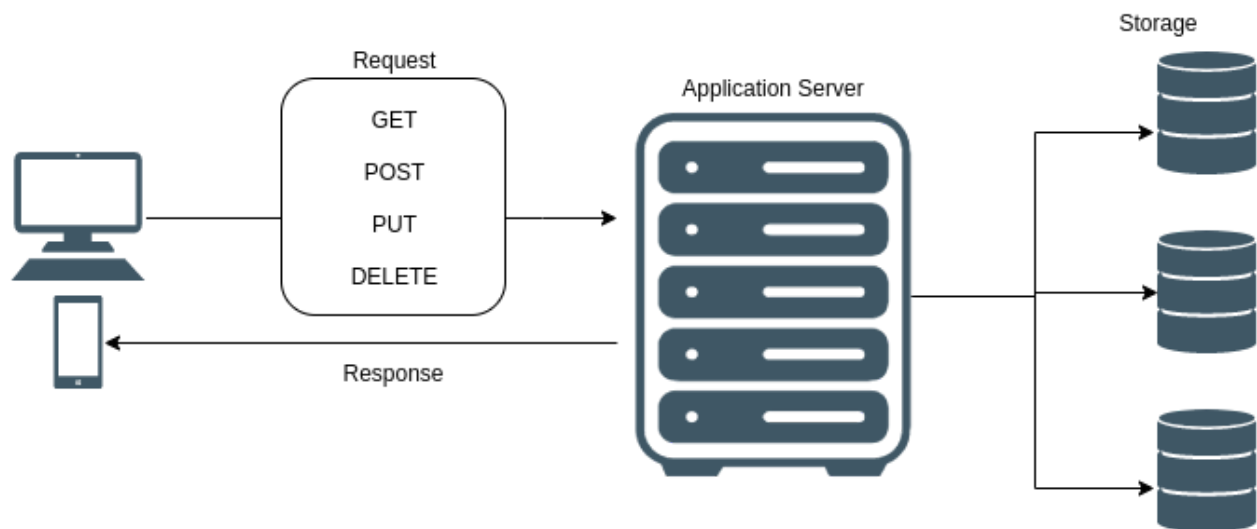


Fig. Rest Architecture

4.2.2 JWT :

JSON Web Token(JWT) is an open standard (RFC 7519) that defines a compact and self-contained way for securely transmitting information between parties as a JSON object. This information can be verified and trusted because it is digitally signed. JWTs can be signed using a secret (with the **HMAC algorithm**) or a public/private key pair using **RSA** or **ECDSA**.

Usage of JWT :

- **Authorization:** This is the most common scenario for using JWT. Once the user is logged in, each subsequent request will include the JWT, allowing the user to access routes, services, and resources that are permitted with that token. Single Sign On is a feature that widely uses JWT nowadays, because of its small overhead and its ability to be easily used across different domains.

- **Information Exchange:** JSON Web Tokens are a good way of securely transmitting information between parties. Because JWTs can be signed—for example, using public/private key pairs—you can be sure the senders are who they say they are.

JWT structure

In its compact format, JWT consists of three parts separated by (.)

- **Header:** The header *typically* consists of two parts: the type of the token, which is JWT, and the signing algorithm being used, such as HMAC SHA256 or RSA.
- **Payload:** The second part of the token is the payload, which contains the claims. Claims are statements about an entity (typically, the user) and additional data.
- **Signature:** The signature is used to verify the message wasn't changed along the way. We can create the signature by taking the encoded header, the encoded payload, a secret, the algorithm specified in the header, and sign that.

4.2.3 Gin:

Gin is a web framework written in Golang. It is used to create rest apis. Gin uses a custom version of the **httprouter** package which is a lightweight high performance HTTP request router.

Features of Gin:

- It's fast and provides some default middleware like logger and recovery.
- Json validation
- Static file serving feature

4.2.4 SEO:

SEO means Search Engine Optimization and is the process used to optimize a website's technical configuration, content relevance and link popularity so its

pages can become easily findable, more relevant and popular towards user search queries, and as a consequence, search engines rank them better. I studied how the web pages are indexed. Web pages are indexed by crawler. When we add the page link in the **sitemap.xml**, then the crawler can crawl the pages. A **robots.txt** file tells search engine crawlers which URLs the crawler can access on the site.

Structured data is a standardized format for providing information about a page and classifying the page content. Structured data is coded using **in-page markup** on the page that the information applies to. The structured data on the page describes the content of that page.

There are different types of Structured Data. Such as JSON-LD, Microdata, RDFa. I have used JSON-LD structured data in the Laravel project.

4.2.5 Publisher & Subscriber Pattern:

The Publisher/Subscriber pattern, also known as pub/sub, is an architectural design pattern that provides a framework for exchanging messages between publishers and subscribers. This pattern involves the publisher and the subscriber relying on a message broker that relays messages from the publisher to the subscribers.

In a pub/sub pattern, **any message published to a topic is immediately received by all of the subscribers to the topic**. Pub/sub messaging can be used to enable event-driven architectures, or to decouple applications in order to increase performance, reliability and scalability.

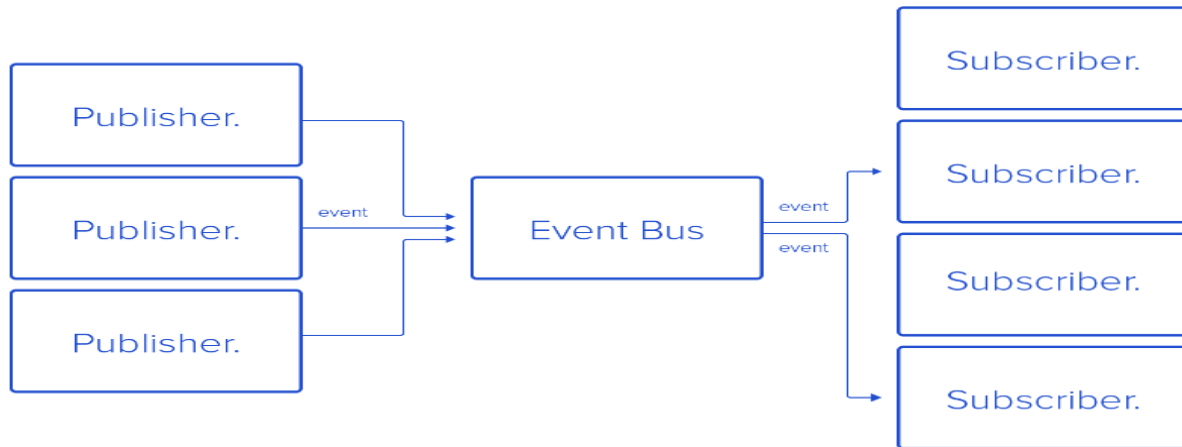


Fig. Publisher/Subscriber pattern

4.3 Non technical growth

4.3.1 Professionalism: At Orbitax everyone was so professional. They were always concerned about their actions and acted accordingly. I saw how much they were dedicated to their work which helped me to become more dedicated.

4.3.2 Teamwork & Cooperation: Orbitax works by dividing its developer into small groups which group was furthermore divided and make a team of two for pair programming. Pair programming helps a lot as 2 people are dedicated to the work so one can code and the other can think about the solution. Moreover, everyone in Orbitax is cooperative. We discussed different topics and solutions daily in our daily meeting with our team lead Shaon vai.

4.3.3 Attitude & Motivation: Orbitax Ltd. is a Software Company full of fun and creative people. Everyone is very helpful. Whenever I faced any problems the seniors helped me and described the problems.

Chapter 5: Conclusion

5.1 Conclusion

The six months of Internship was a time of experimentation. I realized that observation is the main key to find out the root cause of a problem. Not only for my project but also for my daily life. Moreover the projects indirectly helps me to learn independently, discipline myself, be considerate/patient, self trust, take initiative, ability to solve a problem, reading documentation and so on. I have received criticism and advice from my teammates whenever I made mistakes. However, those advice are useful guidance for me to change myself and avoid making the same mistakes again. Throughout this internship I found several things are important:

- Critical & analytical thinking
- Time management
- Goal management
- Colleague interactions

5.1.1 Critical & analytical thinking

To organize our tasks and assignments, we need to analyze our problems and assignments to formulate good solutions to the problem.

5.1.2 Time management

As overall developers are always racing against a tight timeline and packed schedule, a proper time management will minimize facing an overdue time schedule. An effective time management allows us to do our assignments efficiently and meet our schedules.

5.1.3 Goal management

Opposing a herculean goal seemed reachable at first sight, it is better to subdivide the goals into small tasks which are achievable so that we gain more confidence by completing those small tasks.

5.1.4 Colleague interactions

In a working environment, teamwork is vital in contributing to a strong organization. Teamwork is also essential in reaching the goals of the organization

as an entity. Thus, communicating and sharing is much needed in the working environment and we should respect each other.

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