1. **Please tell us about your IT work. What exactly do you do? 2:19**

Basically, everything starts with someone opening an issue, open a ticket, with a problem we have to solve, or some feature that's new.

We generally have some meetings with my teams, and we decide what's the proper job that's to be done, and we estimate this time.

I start developing, and after my job is ready, someone else in my team will review my code, to see if everything is okay and if I'm using the right patterns. And another one in my team test my [unsure] and I review the others and test. And this happens repeatedly.

1. **What do you enjoy most about your work? 3:44**

Yeah, probably I like more about being a software engineer is that you have to solve problems all the time. So, don't get lazy [or work too far ahead?]

There's always something new, always solving problems, that you'd never imagine. Started working in a [machine?] area with some softwares that used to read CT and radio scans. And now I'm working in a company that works with financial advisors and wealth, so it's totally different.

**Felipe: Are you still using the same codes, etc., how does it work? Did it change a lot, what sort of coding? 4:40**

The programming itself hasn't changed, I've worked for 12 years, but programming I think you get used to it, you get new language, and you choose. It didn't change much.

What's really new, is not the code itself, it's how you deliver software that everybody is using – to have versions all the time, and everything is tested automatically... so we have pipelines for doing that.... that's what's new, but you get used to it with learning new things. It's a part of the job.

**Chris: Have you changed what sort of languages you've used in the different companies that you've at? Or have you primarily just used a particular language or two? 5:38**

No, I've been working with lots of language. These last three years I've been working basically with Python, but I have worked with Java, Javascript, C++, C#, and lots of things.

I don't know if I could have changed what I've done in the past, because the technologies didn't exist there, but it would be good if I could start again the projects.

**Chris: Do you have a preferred language that you like working with? 6:27**

I like to work with, especially with Python, because it's quicker to test, because we don't have to compile. So right away you just write and test, and that's really good.

**Chris: Do you find that depending on the project that comes in, you use a specific language for that project, or as a company do you specialize in one particular language? 6:47**

No, it depends on the project, we have projects in Java and C, C#. For example, we have this software that works with the stock market, we have some robots, so we need it to be really quick to solve mathematician problems, so we have this [core?] part that is in C#, no in C++. So, it's faster.

So, it depends on the problem.

1. What drew you to this specific area of IT? **7:34**

I've really never liked much being a part of the managing staff or the testing staff so. I like solving the problems, not really facing the clients or clientele all the time, or just managing people. I prefer just solving, fixing, solving my problem.

1. **Please tell us about the industry you work in. 8:11**

Well, basically we work with the financial area. The software I've been working on is [? the sydney office works?] ... software that's financial adviser users to get the file off the clients, to give some tips and, the software is really big, it has more than 15 years so, lots of old codes and things that we have to update.

We are, current we are changing everything to the cloud. So that's a big [job?], but yeah.

**Chris: the cloud has become quite a big thing of late, a lot of companies are transitioning to it. Would you say it's a big focus in the company at the moment? 9:05**

Yeah, it's the biggest focus in the company. The software is really stable, for some time, but if they don't change for the cloud, we'll probably have – we'll be beat out by other companies that... has less... [things work better in the cloud?]

**Chris: Is it the same sort of idea as Quickbooks, that sort of financial software? If you know it. 9:30**

I don't know, but basically our clients are the banks and they [...] financial advisors. So, NAB is a client, commonwealth is a client, we have pretty big clients.

**Felipe: so most of your clients are Australian banks, you'd say? 9:57**

Yeah, yeah. We now have an office in UK, and in NZ, South Africa and Canada. 90% is Australian.

1. **What other kinds of work do you have to do? 10:17**

It's mainly developing, but we also have lots of small things we should do, for example we have to train new people, we have to develop... how do I say that... we have to develop, we have to plan... we have some meetings that we call initiative, that we plan for the whole semester, the whole year.

So we have lots of planning and meetings with the clients too, it's not every day but from time to time we have to face the clients, and see how it's-everything's going. It's a policy of the company so we have to meet the clients and see how are they liking our software that we're developing.

We also have to try new things too, because we have some time to improve what we have or to bring new ideas... our company is [...?] for that so, we generally have some days in the year that we focus on bringing new solutions for the company, so we can have time to deal with new softwares, new things,

1. **What's the most stressful aspect of your work? 11:54**

Well, I think the most stressful part is dealing with people, not because of the people itself but because there's a big difference of what they client want and what the company can offer and [who got the clients requirements (I think he was saying what the client thinks they're getting, etc., avoiding misunderstandings?).

There's a lot of misunderstandings in the process, so yeah that's really complicated. It's the most challenging part for me, and of course we as a software developer want to offer the best performance, the best... everything that's new... but the client has a deadline that should be faced, the company has a budget he wants to spend, having lots of things to do with people.

**Chris: so yeah, I can see how that would be difficult liaising with clients and everything, you need to make sure everyone's on the same page despite all the different requirements.**

Yeah, even the same team we have a job to do and a task we got, and I have an understanding of what to do, and the other guy on my team has an understanding of what we need to do, so we have to clarify all the time.

Sometimes, you just go and start developing and when you see you did the wrong thing, so [that's ...?].

**Felipe: do you guys work on live documents, live servers, when you changing anything in the code can everybody see at the same time or do you work on your side and then upload it?**  
  
Yeah, we generally use Git, GitHub for having our codes. We also use [?them ... programming now], like in VS Code we have a live uploading that's called live share, that we... it works similar to Google docs, more than one people can be dealing with the same file at the same time.

But that's just now because of the COVID and everything, but generally just GitHub [... branches and] ... [version].

**Chris: do you in your company have like a team of programmers and then another team that works in another area and you liaise with each other? 14:32**

Well, generally... I have worked in some companies that worked like that, keyway[?] team, developer team. I think most of the new companies, and the one I'm working for, generally the team is responsible for everything, you get a piece of code or a whole software and you're responsible for developing, testing and bringing quality and everything.

**Chris: so there might be someone in the team that isn't a coder, that focuses on different aspects of the project and you'' liaise with them about certain things?**

Actually, everybody, especially in my company, everybody works with the code part. Even the managers, the leaders, they have been software engineers before. That's the policy of the company, and so... you kind of learn the other parts too.

Everybody has to... of course, everyone has a strong point, but everybody knows a little bit of everything.

**Chris: that's very dynamic**

Yeah, a lot of companies like Amazon for example, it's the same. I have some friends that work there, they're generally responsible for writing the code, writing the tests, and if something wrong came from that code they're responsible for it too, so they have a lot of responsibility.

1. **Do you find that your work spills over into your personal time? Such as working overtime, working outside of work hours, working on weekends? If so, is this a common occurrence?**

Not always, but it occurs. It depends on the area I work in... I've been working with a game company, that was crazy, you don't have time... never. People [idolize?] this as a job, but it's really crazy.

**Chris: I've heard they're notorious for overtime, there's always deadlines, that're always so hard to meet.**

Yeah, exactly so now in my company, last two weeks I've had to work out of hours, one day only, but it depends, if I'm facing a critical job [?], have to fix it.

1. **In your job, do you feel more productive working from an office or from home?**

I used to feel more productive working in an office, but after the COVID I think I've learned to work from home, and now I think it's the same.

1. **Who are all the different people you interact with in your work? Please tell us about them.**
2. **Please tell us about your interactions with other IT professionals.**
3. **What about your interactions with clients or investors?**

(These three sort of got answered in one go)

Do you mean how we communicate with each other in the teams?

Chris/Felipe: yes

Yeah, now, we are doing everything using Zoom, but I think it's the same as before, we are having one [?standup] every day at 10:15, and two times a week we have a big meeting of 1 or 2 hours, that we use to plan the work that has to be done during the other weeks.

And one every two weeks, we have [vice principle?] that we use to plan everything that we're going to do for the next two weeks, and what we have done, and was wrong and everything.

And during the job we communicate a lot about the cards that we have, the tickets that we have to solve, so generally we have a lot of [?] programming, even with Zoom.

I call another member of my team, and we share the screen and start solving the problem. Yeah, basically.

**Felipe: So, do you deal a lot with the other departments of the company? 19:28**

Yeah, not a lot, they are always close. They are always asking questions. We are having meetings. But that's not a routine. It's something that happens from time to time.

1. Do you get asked to do things outside of your field of knowledge? (Or maybe work with languages that you don't know?)

Yeah, that's pretty common. I think we should be open minded with that, because you never know what you face, even for example I work with Python, [if] I only work with Python, if I say that. Suddenly I need to convert code to Python, so I need to know the other language, how it works. And especially know what's the difference between them.

**Felipe: Do you see a lot of synergy between the languages? Like Java, Python, or..?**

Yeah, I think every language has a good aspect, you should explore the good parts of it. I like to use the strong points of each one, generally the developers of each language don't have the synergy but the language itself they do... it's good to know a little bit of each one.

**Chris: would there be a number of languages that you would recommend as critical to know as a software engineer?**  
  
Not specifically the language, but good to know high level language like Java, C#, another script language like Python or Ruby, and it's good to know also a low level language like C or C++. One of each one, not exactly that specific.

1. **What aspects of your work do you spend most time on? Please tell us about these. For example, there's obviously coding but planning, do you plan ahead what you're going to do? 21:56**

Yeah, we spend a lot of time planning. I spend most of my time reading... always reading the description of a problem, then you have to read about how to solve this problem, and then you have to learn a new library to solve this problem. So you always reading and writing... even more than coding, and even for the plan... when you plan something generally you have to write the documentation about it. So... always reading and writing.

**Chris: And as a part of that reading, do you turn to Google and research different topics on the best way to achieve something?**

Yeah, yeah, generally the good things is Stack Overflow.

1. **Which aspects of your work do you find most challenging? Is it learning, and researching the new things before implementing it?**

Yeah, yeah exactly. Because, it's good that we have a lot of info on the internet and on Google and everything... but there's a lot of things that are not what you want. So you have to test by yourself, so you have to create some routines, have to create some prototypes of what you want to do. You can't just start coding.

**Chris: Do you sometimes consult with your other team members about a problem?**

Yeah, we do that practically all the time. Every day we have to [stand up?] and say I am stuck with this issue, and the other guys come and help, and I try to help them too.

1. **How do you keep up with current trends and advances in your field?**

I like to... generally I have some small projects of my own that I like to try and do new things. For example, I created a restaurant software. Just as a prototype, but then I try it out, now I'm going to use this new library and this new language, and just keep playing with it.

I think you cannot really learn anything, you know, without putting your hands on it.

**Felipe: Trial and error**  
  
Yeah, exactly

1. **Do you do much learning/training in other areas of IT? (A formal course or anything like this? Or online and you go find it?)**

Yeah, we are always having... the company's always having some kind of training. They generally pay for our... for us to do Amazon training, having summits, and [..] generally if you have to do a small travel, going to a meeting and learning new things, they are open to it.

I think the big companies are generally doing that. But now with the COVID, everything is really... cancelled.

1. **Did you ever alter your path towards your current role because of newly found interests?**

Nah, I'll tell the truth, my career is pretty [?steady] as a software engineer. I have been dealing generally with algorithm problems, so I have been work with problems with mathematics, that's pretty [steady?], I think I was hired to work for this company, because of my past working with that.

**Chris: Do you find mathematics is an integral part of what you do? 27:13**

Yeah, yeah, definitely. Especially, I'm working in the financial area, and before with physics and games, and everything is mathematical. And I love solving mathematical problems.

1. Did the Covid19 impact your work? If so, how did it happen and do you feel positive or negative about its impacts for IT?

Ah, the good side of it is I think the company is more open now for working from home. They have learned that we can produce the same, or almost the same, from home. That's good because I think we have more flexibility, after everything pass. That's good.

The other good part is as I have learned, work from home, to be productive. In the beginning it was kind of hard, I think without this experience, I would probably not persist and not be working as now. I really like that aspect.

The bad part is, we, I miss to getting directly to a person to ask something. Like when I have to solve an issue, and everything. We have a lot of contact with our team, and we can contact someone from the other teams too. But, it's not the same, especially if the other team is always having meetings and something else to do. But when you see a person you just go and ask them. That's what I miss.

**Felipe: Like I always say, if you see a person you can go and ask straight. Do you get interrupted a lot? And did it make your job a bit harder to concentrate on? Or can you switch really well?**

Yeah, yeah, but you, umm, I used to work for a smaller company now, the company I have been working at has like 5000 employees, so it's a really big company. We have so many interruptions at the big company because, so many people to have to give some explanation. You have to learn to deal with interruptions. Of course, it's not good. But even working from home, you have a lot of messages, it's the same.

1. **If you were starting again, and with your current knowledge, what would be the first programming language a professional in your field should learn?**

If I could start again, I would start with C or C++ because that's what I think most people don't focus [on] today, because they are low levels [languages] but there are a lot of companies that need this, and you always facing some problems, even if you use Java or Python or other language, you have a part of the code that is written in C or C++. So, if I master those language, that would be really good.

I have some experience, but I would like to learn more.

1. **Finally, can you share an example of the work you do that best captures the essence of the IT industry?**

Yeah, cool... I think the essence is solving issues [from the real world?]. The best, I have worked in a project for some dentists, that they had an idea of planning to put a dental implant in a [tomography?] with the software, and this software will plan some coordinates to put in [to] a machine that they develop. This machine will put the implants in the perfect position.

They try with other company, but they said it is not possible. [?they came] from the company I used to work in, we solved the problem, and it's working today.

It's a new technology that could help lots of people, so I think that's the essence of our job.