Unit 1

Getting Started

项目启动

I. Work environment

II. Discussing feasibility

1 Work environment
Listening & speaking

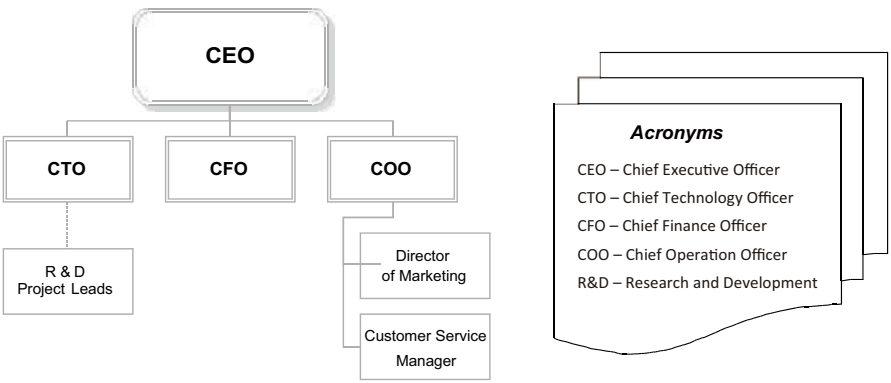
In this section, you'll learn...

- The organization of a company;
- Organizational ranks;
- The work environment.

A Business structure

When we talk about a successful company, say, Microsoft, what's the first image that occurs to you? Its widely used products? The fabulous logos? The incredible revenue growth during the last year? Or the insightful and talented CEO?

Any of these aforementioned pictures may be your impression of this legendary business organization. But, have you ever thought about this question: what made it such a great hit? Was it simply because of Bill Gate's incredible insights? Or, was it merely a result of its creative engineers? In order to answer this question, we need to take a look at the graph below:



Graph 1 Simplified Organizational Chart

This is a simplified organizational chart. The real structure of a company is likely to be much more complex than the chart depicts. This chart tells us the hierarchical structure of a company: the CEO is the head of the company; the CTO, CFO and COO report directly to the CEO; the Director of Marketing and the Manager of Customer Services are under the supervision of the COO.

As this company grows, its organization may become more complex. Therefore, every position on this chart is expandable, which means the CTO and the CFO may each have teams working under them.

Organizational charts

An organizational chart is a chart which represents the structure of an organization in terms of rank. The chart shows the managers and subordinates that make up an organization, and it also shows relationships between them.

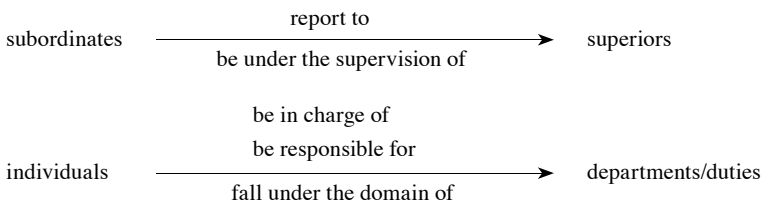
An organization chart facilitates the understanding of the company that a new employee works for. It is important that every new member gets to know the organizational structure and adapts to the new work environment as soon as possible.

Describing organizational structure

There are several useful expressions to describe an organizational chart, such as

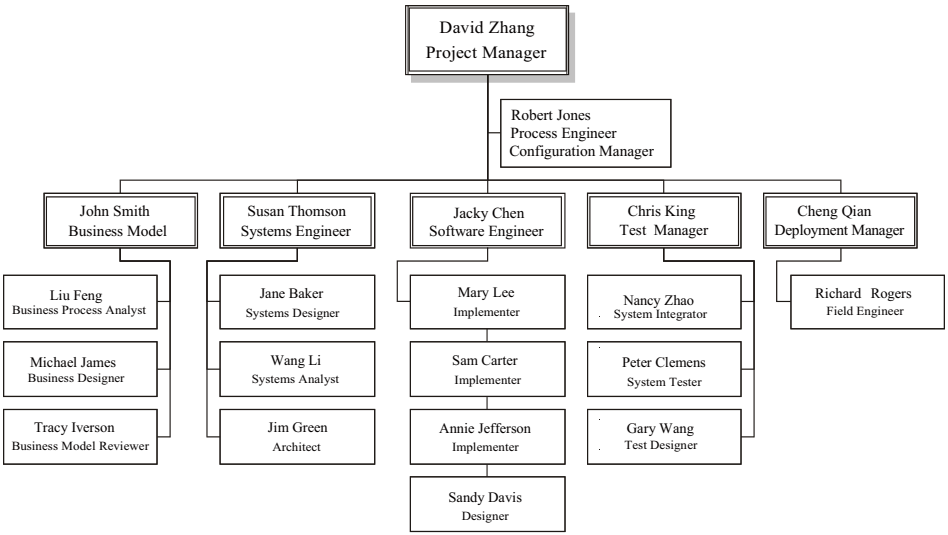
report directly to; be under the supervision of; be in charge of

We add two more phrases and illustrate their usages as below:



Graph 2 Reporting relationship

Below is an example of organizational charts for project teams. Try to describe it using the expressions you've just learned.



Graph 3 A Project Team of General Computers Corporation

B Getting to know the work environment

Jacky Chen is a software engineer in General Computers Corporation. He has worked there for a year. Thanks to his hard work and industry, he has been appointed Development Team Lead in several projects. He is welcoming a new implementer, Mary Lee, who begins her job today. Listen to the following conversations.

Mary: Good morning, Mr. Chen. It's a pleasure to meet you again.

Jacky: Nice to see you at long last, Ms. Lee. Call me Jacky, please.

Mary: Fine, Jacky. Please call me Mary.

Jacky: We'd like to welcome you to our company. If you work hard, the sky is the limit here.

Mary: Thanks, I'll try my best.

Jacky: Great. Well, let me show you where everything is.

Mary: OK.

Jacky: Everybody, I would like you to meet our new comer, Mary Lee. She's just

graduated from college, and she'll join our team.

Mary: Nice to meet you, everybody.

Everybody: Nice to meet you, Mary.

Jacky: This is our Project Engineering Configuration Manager, Robert Jones.

Robert: It's a pleasure to meet you. Welcome to GCC.

Mary: It's a pleasure to meet you, too.

Robert: We're glad to have you aboard. If you have any questions, please feel free to ask. We're all glad to help you out.

Mary: It's very nice of you. I would very much appreciate your guidance.

Robert: That's all right. I will try my best to assist.

Jacky gets back to his work. But Mary still has some problems with the facilities in the office. She is requesting help from Robert, when Chris King, the Test Team Lead, comes back from a business trip.

Mary: Do you have a minute, Robert?

Robert: Yes, what's up?

Mary: Actually, I don't know where the Human Resources Department is.

Robert: It's over there, next to the Accounting Department. You'll probably have to fill out some forms on your first day, right?

Mary: Right. Um... do you know where the time clock is?

Robert: It's near the entrance. Do you have a time card?

Mary: Not yet. I think the HR manager will give me one.

Robert: Well, make sure you get one soon. You don't want to be late on your first day. Anything else?

Mary: Just one more question: where is the coffee maker located?

Robert: A-ha! That's the most important place in the office. It's right over here. Come on, let's go and get a cup. Hey, Chris, you are back! Let me introduce this new comer to you. This is Mary, the new implementer in the development team.

Chris: Hi, my name is Chris King, a test engineer. You are new round here, huh?

Mary: Yes, my name's Mary Lee. I just started today.

Chris: Well, if there's anything I can do for you, let me know.

Mary: Thanks. I appreciate that!

Sentence patterns

Introduction

Introducing yourself to others:

- *I'm..., the... engineer of / for / at / in...*
- *Allow me to introduce myself.*
- *Let me introduce myself.*
- *I don't think we have met before.*

Introducing people to each other:

- *This is..., the... of...*
- *I would like to introduce..., the... of...*
- *I would like you to meet..., the... of...*
- *Allow me to introduce..., the... of...*
- *May I present/introduce..., the... of...*

Greetings

A: How do you do?
- *It's nice/great to meet you.*
- *It's a pleasure to meet you.*
- *I'm pleased/glad/delighted to meet you.*

B: I'm pleased/glad/delighted to meet you, too.

Exercises

Dictation

This textbook is designed especially for programmers, but what is a programmer and what do programmers actually do? The passage you are going to hear can provide you with some general ideas. This passage will be played THREE times at the same speed. Listen carefully, and fill in the blanks with the words you have heard.

What Is a Computer Programmer?

Computer programmers _____ the detailed instructions, called _____, which computers must follow to perform their functions. They also conceive, design, and test logical structures for _____. In general, a computer programmer refers to individuals whose _____ is programming; this group has a wide range of responsibilities and educational backgrounds. Somebody who practices (or professes) a formal approach to programming may also be known as a _____.

Programmers _____. Professional programmers work in _____, _____ or _____. Their _____ may vary, depending on the organization.

Augusta Ada King, the countess of Lovelace is considered _____. She was the first to express an _____ intended for implementation on a computer, Charles Babbage's analytical engine, in October 1842.

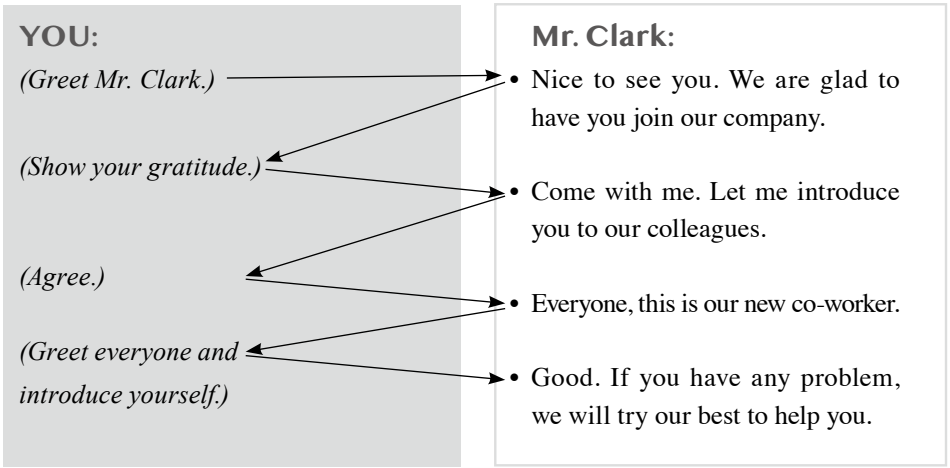
Those _____ in computer programming skills may become infamous, though this notoriety is normally confined to _____. Many of the most notable programmers are often labeled "_____." Programmers often project an image of individualist geekdom, being resistant to wearing suits, institutional controls and collective bargaining.

Glossary

instruction *n.* 指令
conceive *vt.* 构思
profess *vt.* 以……为业
vary *vi.* 变化，不同
countess *n.* 伯爵夫人，女伯爵
analytical *adj.* 解析的，分析的
infamous *adj.* 声名狼藉的
notoriety *n.* 恶名
geekdom *n.* 怪诞可笑

Oral practice

Today is your first day of employment. You are greeted by a senior officer, Mr. Clark. Think about how to carry on this conversation with him. Use the sentence patterns and phrases in our text.


YOU:
(Greet Mr. Clark.)
(Show your gratitude.)
(Agree.)
(Greet everyone and introduce yourself.)
Mr. Clark:
• Nice to see you. We are glad to have you join our company.
• Come with me. Let me introduce you to our colleagues.
• Everyone, this is our new co-worker.
• Good. If you have any problem, we will try our best to help you.

II Discussing feasibility
Technical conversations

A Discussing feasibility issues

Jacky Chen is calling his co-worker, Mary, who is doing a feasibility study for the planet tracking system. Listen to the following telephone conversation.

Mary: Good afternoon, Mary Lee speaking.

Jacky: Good afternoon, Mary. It's Jacky.

Mary: Oh, hi, Jacky. How can I help you?

Jacky: Well, Mr. Roland of Cosmos Engineering called this morning and he wanted to know if we have finished the feasibility study yet. He sounded like this thing is pretty urgent. If I remember correctly, we worked out three possible solutions and discussed their strengths and weaknesses. Did you finish the detailed study and the report?

Mary: Well, uhh... I've almost finished the detailed study, and I'm writing the report now. Uhh, actually, I've done most of it, but I just haven't completed the financial part yet.

Jacky: You mean all the costs and benefits?

Mary: Yeah, but this one is mostly costs. You know, there are just too many costs: hardware costs, software costs, time costs... Just too many types to keep track of.

Jacky: Well, I think you should arrange them in just two

Feasibility study

Feasibility study is a preliminary study before the main work of a project starts, which finds out the probability of the project's success. It is an analysis of all possible solutions to a problem and a recommendation on the best solution to use.

categories—tangible costs, and intangible costs. That way, it may be easier for you to sort them out.

Mary: Good idea! Thanks. Alright, I think I can sort them out and finish the feasibility report by 4:00 p.m.

Jacky: Terrific. I'll tell Mr. Zhang so that we can call a meeting to prepare the final version. Oh, yeah, after that I'll need to tell Mr. Roland about your progress and explain to him why he didn't get the reports yesterday. I'm sure that's when he expected them.

Mary: I see. I'll send you a copy as soon as I'm finished. Thanks for your help. I can't tell you how much I appreciate it.

Jacky: You're welcome! Bye.

Mary: Bye.

Feasibility report

This type of writing studies a project or a plan and then determines whether that project or plan is "feasible". Not only does it give advice, it also provides the data and the reasoning behind that advice.

B Explaining feasibility issues

Jacky's team worked out the final feasibility report and e-mailed it to Mr. Roland after the team's meeting. Then he immediately follows up his e-mail with a phone call.

Receptionist: Good afternoon, Cosmos Engineering. Can I help you?

Jacky: Yes. Good afternoon. This is Jacky Chen of General Computers and I'd like to speak to Mr. Roland, please.

Receptionist: Just a moment, please. I'll put you through...

Mr. Roland: Good afternoon. Rodney Roland speaking.

Jacky: Hi, Mr. Roland. This is Jacky Chen of General Computers. I'm calling to brief you on our feasibility study of your planet tracking system.

Mr. Roland: OK, thanks. But why did it take you so long?

Jacky: Well, Mr. Roland, in any type of software project, our first step is to conduct a time consuming requirements analysis. Although it is time consuming, it is also imperative that we complete this step in order to ensure that the later parts are successful. It's absolutely critical and well worth the time. I'd be happy to explain the process as well as its importance if you have the time.

Mr. Roland: No, that won't be necessary. So, what's your conclusion then?

Jacky: After a comprehensive study, we continued to narrow our solutions down until we finally came up with what we believe to be the very best one. With this solution, we'll not only meet all your requirements, but we'll also keep our costs under budget.

Mr. Roland: Well, that certainly sounds good anyway. So what did you come up with then?

Jacky: I already e-mailed you our feasibility report, but I can explain it briefly now. We think we can meet all your requirements if we build the software entirely with Visual C++. We initially considered using a third party application as well, but our team rejected this idea because of compatibility issues.

Requirements analysis

In software engineering, requirements analysis, also known as requirements engineering, is a term used to describe all the tasks that scope and define a new or altered computer system. Requirements analysis is an important part of the software engineering process.

Mr. Roland:	Well, I'm glad you figured that out before we put too much time, money and effort into it. So, when can you start programming?
Jacky:	Well, I'm afraid we have to design the project before we can implement it. But I'll update you on our progress as often as possible.
Mr. Roland:	Fine. Thanks for calling.

Exercises

Fill in the blanks

Fill in the blanks in the following sentences with the given expressions, and then read them aloud.

Useful expressions

- *How can I help you?*
- *sound like*
- *work out*
- *You mean...?*
- *keep track of*
- *sort out*
- *brief someone on something*
- *come up with*
- *because of*
- *figure out*

a) —Good morning, General Computers. _____?

—Good morning. May I speak to Ms. Jerkins, please? I need to know if she has _____ the project plan yet.

b) —We have to _____ the most talented programmers for this significant project.

—Well, Beth is always _____ the programmers' performances. You can ask for his opinion.

c) —_____ we have to depend on our clients in finding a best solution?

—No, what I meant was that they must play a more active role in defining the software. They need to _____ us _____ their exact needs.

d) —So far we have _____ the one best solution for our project.

—Great. What did you _____? Tell me about it.

e) —You said your team won't use Java. That doesn't _____ you.

—Well, _____ the current schedule of this project, our programmers won't have enough time to get familiar with Java. Only three of us are certified Java programmers.

Write down sentences

Imagine you are talking with a client over the phone. Write down what you would say in the following situations.

a) You are calling Mr. Franklin, and he doesn't know who you are.

Hello, Mr. Franklin, this is Stephanie Neilson of Creation Software.

b) You are asking a client, Ms. White, to send you a User Requirements Document.

c) Ms. White wants to add a new user scenario to the software, and you want to know more about it.

d) You have to tell Mrs. Wood that the program designed for her company won't be able to incorporate an online payment system.

e) You need to ask a client whether there is any technical jargon that needs explaining in the feasibility report you sent to him/her.

Work in pairs

Imagine you and your partner are communicating by phone. Sit back to back, and make up conversations according to the following information. Take turns playing different roles.

1

Caller—Jacky Chen

You are calling a colleague to discuss the technical feasibility of a software project. You want to know which platform the software is expected to run on, and which programming language to use.

Receiver—Jim

Tell the caller that the software is going to run on Windows, which your team can handle very well. However, the expected programming language is Java, which your team can't handle very well.

2

Caller—Jacky Chen

You are calling a client, Mr. Allen, to explain the feasibility report you have sent him. Ask him either to extend the deadline, if your team must use Java, or to allow your team to program in Visual C++.

Receiver—Receptionist & Mr. Allen

Transfer the call to Mr. Allen. Mr. Allen tells the caller that it is impossible to extend the deadline, and the software must be finished by the end of the next month. However, they may use Visual C++.

Group work

Finish the tasks below.

a) In groups of three to five students, discuss what you already know and what you want to know about requirements analysis. If you are a student, refer to any books or other materials; if you are an IT professional, share your experience with others.

b) Form a group with any member of your class and start to make phone calls in situations similar to what you have practiced so far. The topic has to be related to a feasibility study. Use your real names, companies and telephone numbers. Change partners and situations when you are done.

Unit 2

Formulating Plans

项目策划

I. Meetings

II. Formulating plans

1 Meetings
Listening & speaking

In this section, you will learn...

- Typical scenarios in a meeting;
- Having a meeting;
- Assigning tasks.

A Warm-up

A programmer for Hewlett-Packard went to the doctor complaining about pain in her wrists. The doctor poked and prodded her with cold instruments for a while and issued a prognosis.

"You have carpal tunnel syndrome, but it's in its early stages. You are able to continue working, but you should give up half of your programming."

"Which half? Writing memos about it or attending meetings about it? "

Vocabulary

issue *v.* 诊断	prognosis *n.* 预后, 判病结果
poke and prod 戳了戳	carpal tunnel syndrome 腕管综合症
in its early stages 早期	give up 放弃

Side dish

According to this joke, all this programmer has been doing is "writing memos" and "attending meetings" about "programming", but doing no actual programming work. That is an exaggeration, but it is true that, as a programmer, much of your time is taken up with meetings: meetings with customers on requirements or to report the progress of the

project; meetings with colleagues to discuss specific technical problems, etc.

Most people, however, regard meetings as a waste of time and energy. Is this really the case? Of course not! You need to gather and decode crucial information.

Before the meeting

Project Manager: Guys, we are going to have a meeting this afternoon. Make sure you arrive at the meeting room at 15:00 sharp! This is urgent!

Decoding: Hurry up! A project is coming! If you win the bid, you may get a lot of money!

At the meeting

Project Manager: OK, A Corporation A wants us to develop software B.

Decoding: B software? Does it sound like it will be easy? If yes, well, you can relax! You may be able to enjoy yourself and make money at the same time! If no, hurrah! This may be even better! The software might be a great hit in the technical world, and bring you lots of income!

Project Manager: A, you are responsible for...; B, you should take full responsibility over the...; C, you need to do...

Decoding: Take out your notebook, note down how much work is assigned to you and calculate how much you are going to get.

Does the word "meeting" still sound boring and useless to you? We should view meetings as being informative, encouraging, and positive. What are you waiting for? Become engaged in meetings!

B Conversations in meetings

You may realize that much of your time spent in meetings is unfocused, unsatisfying and unproductive. How can we make meetings enjoyable, energetic, focused and productive? The following examples provide several typical scenarios. Try to understand these scenarios and learn what to say on these occasions.

The project team is having a meeting concerning task assignments. The meeting is led by David.

The meeting is getting started.

David: Good morning. It's a pleasure to welcome our new member Mary Lee to this meeting. Ms. Lee, we're happy to have you with us today.

Mary: Thanks. I'm delighted to be here.

David is making some opening remarks.

David: Now I'd like to get things under way. Let's take a quick look at the first item on the agenda. The main topic today is making assignments for the tasks on our new project.

(The secretary is distributing flyers to everyone.)

The meeting is under way.

David: As you can see on the flyer, the team are assigned to the following roles.

Task details are listed in the following table.

Task list

Team roles were assigned as follows.

David Zhang—Project Manager, Documentation Manager

Robert Jones—Process Manager

Susan Thomason—Systems Engineering Team Lead

Jacky Chen—Development Team Lead

Chris King—Test Team Lead

Choose a team name and project name

Team Name—Network Operated Robotics Research Team (NORRT)

Project Name—The Web Operated Robotic Machine (WORM) Project

They went through the task assignments.

David: I think everyone is clear about his/her job. If you have any doubts, please don't hesitate to ask. Now, I'd like to hear any and all of your ideas about this project. Susan, you seem to be in top form today. Could you start the ball rolling?

There is some small argument over certain points.

Susan: Uh, sure. I think we should keep in mind that the key to good development is to achieve what we want with the least amount of time and resources.

Chris: Well, that's kind of obvious.

Susan: I'll tell you what I think the trouble is: we still have much to formulate in order to meet the requirements even though we have utilized developed modules from a similar project.

David: That is interesting, Susan. Now, let's keep this moving. Otherwise, we have to extend the meeting into lunchtime, if you like.

All: Oh, no!!!

Sentence patterns

Chairing a meeting involves careful preparation and sound training. Although not every meeting deals with exactly the same topics, most meetings use this structure:

Introduction, **Discussion**, and **Conclusion**.

The introduction, or opening, is very important in a meeting. Specifically, the opening is usually subdivided into five parts:

1. getting attention
2. welcoming and making the necessary introductions
3. stating the principal objectives
4. previewing the agenda
5. getting the discussion started

Now learn the following phrases and sentence patterns. They will make your meetings more effective and efficient.

Getting attention

On formal occasions, you can start by saying:

- *Good morning/afternoon, everyone. May I have your attention?*
- *I'd like to get things under way.*

On relatively informal and familiar occasions, you can just say:

- *If we are all here, let's get started.*
- *Let's just begin.*
- *Let's get down to business.*
- *We'd better start.*
- *It's time to begin.*
- *OK, /Well, /Alright, ...*

Welcome and introduction

- *Welcome to...*
- *Let's welcome...*
- *It's a pleasure to welcome...*
- *I would like to start by welcoming...*
- *Please join me in welcoming...*
- *I'd like to extend a warm welcome to...*
- *I'd like to introduce...*