

# Analytics

**Task 1. Complete the text with the given verbs in the correct form.**

## A Brief History of Analytics

The use of analytics in business can be found as far back as the 19th century, when time management exercises *was initiated/ were initiated* by Frederick Winslow Taylor. Another example is when Henry Ford *measured/ was measured* the speed of assembly lines. In the late 1960s, analytics began receiving more attention as computers became decision-making support systems. With the development of big data, data warehouses, the Cloud, software and hardware, data analytics has significantly evolved. Data analytics involves the research, discovery, and interpretation of patterns within data.

Data analytics *is based/was based* on statistics. They say statistics *were used/are used* as far back as Ancient Egypt for building pyramids. Governments worldwide have used statistics based on censuses for a variety of planning activities, including taxation.

The development of computers and the evolution of computing technology has dramatically enhanced the process of data analytics. In 1880, prior to computers, it *takes/took* over seven years for the U.S. Census Bureau to process the collected information and complete a final report. In response, inventor Herman Hollerith to produce the tabulating machine, which *was used/ were used* in the 1890 census. The tabulating machine could systematically process data recorded on punch cards. With this device, the 1890 census *was finished/were finished* in 18 months.

Relational databases *were invented/are invented* by Edgar F. Codd in the 1970s and *became/were become* quite popular in the 1980s. Relational databases (RDBMs), in turn, *allowed/were allowed* users to write in Sequel (SQL) and retrieve data from their database. Relational databases and SQL provided the advantage of being able to analyze data on demand and are still used extensively.

**Task 2. Read the text one more time and mark the sentences as True or False.**

1. In the late 1970s, analytics began receiving more attention as computers became decision-making support systems.
2. Statistics is based on data analytics.
3. The tabulating machine could systematically process data recorded on punch cards.
4. In the 1970s Edgar F. Codd invented relational databases.
5. Governments worldwide haven't used statistics based on censuses for a variety of planning activities.

**Task 3. There are a lot of soft skills which are important for data analysts, read the opinions of data analysts and tick the soft skills they mention.**

**Speaker 1:** To work in analytics, you need to have skills from different areas. I think that besides our professional skills, it's vital to be creative. You have to look at the problem from different perspectives, as there are no templates in working with data. I also believe that learning ability is crucial for our job – you need to grasp any opportunity to find something new and never stop learning.

**Speaker 2:** If we don't speak about professional skills, then I'll definitely highlight teamwork. We collaborate with people in a variety of positions to get the job done. We work together with web developers to ensure that our company's website is designed to efficiently capture the data we need. On a big-picture scale, we communicate with company leaders to determine how the latest data insights can guide the company in moving forward toward its objectives.

**Speaker 3:** To succeed in this job, you need to be really flexible. We have to experience things first-hand, and there are no guarantees that the model we come up with will work the first time. So we need to draw conclusions and take actions again focusing on the aim and not the previous failures. Well, I think that being flexible and ready to go from plan A to plan B is important.

**Speaker 4:** I'd be really surprised if my colleagues hadn't mentioned critical thinking. I believe it to be the most important soft skill. This skill helps us not to take things at face value, but dig deeper, question options, easy and expected answers, and biases.

The speakers think the following soft skills are important:

1. detail orientation;
2. teamwork;
3. leadership;
4. decision-making;
5. critical thinking;
6. flexibility;
7. problem solving;
8. ability to learn;
9. creativity;
10. a strong work ethic.

**Task 4. Match each word from the text with its definition to understand it better.**

	word		definition
1	to experience things firsthand	A	means to accept a situation or accept what someone says without thinking there may be a hidden meaning.
2	to make conclusions	B	means to decide what to believe about something after you have considered the facts.
3	to look at the problem from different perspectives	C	means to act in order to get a particular result.
4	to take actions	D	means to take advantage of something when it happens.
5	to grasp an opportunity	E	means to think about something from different points of view.
6	to take things at face value	F	means to learn things directly rather than being told about it by other people.

**Task 5. Make a summary of the data analysts' speeches using the given phrases:**

*to take things at face value, to experience things firsthand, to grasp an opportunity, to look at the problem from different perspectives, to draw conclusions, to take action*

**Task 6. Hard skills and soft skills are equally important. And what's your opinion? Put the skills in the appropriate columns. Explain your opinion in some sentences.**

Leadership, problem solving, teamwork, creativity, decision-making, a strong work ethic, ability to learn, flexibility, detail orientation, critical thinking

Soft skills important for my job	Soft skills not important for my job

**Task 7. Complete the sentences with the given phrases.**

takes things at face value, experience things firsthand, grasp an opportunity, looked at the problem from different perspectives, draw conclusions, take action

1. I'm ready to \_\_\_\_\_ to expand the business.
2. My boss never \_\_\_\_\_, he always double-checks everything.
3. It would be unwise to \_\_\_\_\_ - from the results of a single survey.
4. Data analysts have to \_\_\_\_\_, there are no ready-made solutions for the problems they deal with.
5. The PR department is ready to \_\_\_\_\_, they only need a CEO resolution.
6. If you think there is no way to solve the problem, it only means that you haven't \_\_\_\_\_.

**Task 8. Read the task and prepare your 3-minute speech on the topic "Analytics in my company". Interview your colleagues from the analytics department (even if you're a part of it) and then answer the following questions:**

- Who is responsible for analytics in your company?
- What are the duties of this department?
- What skills are essential for this job?
- What are the challenges of this department?