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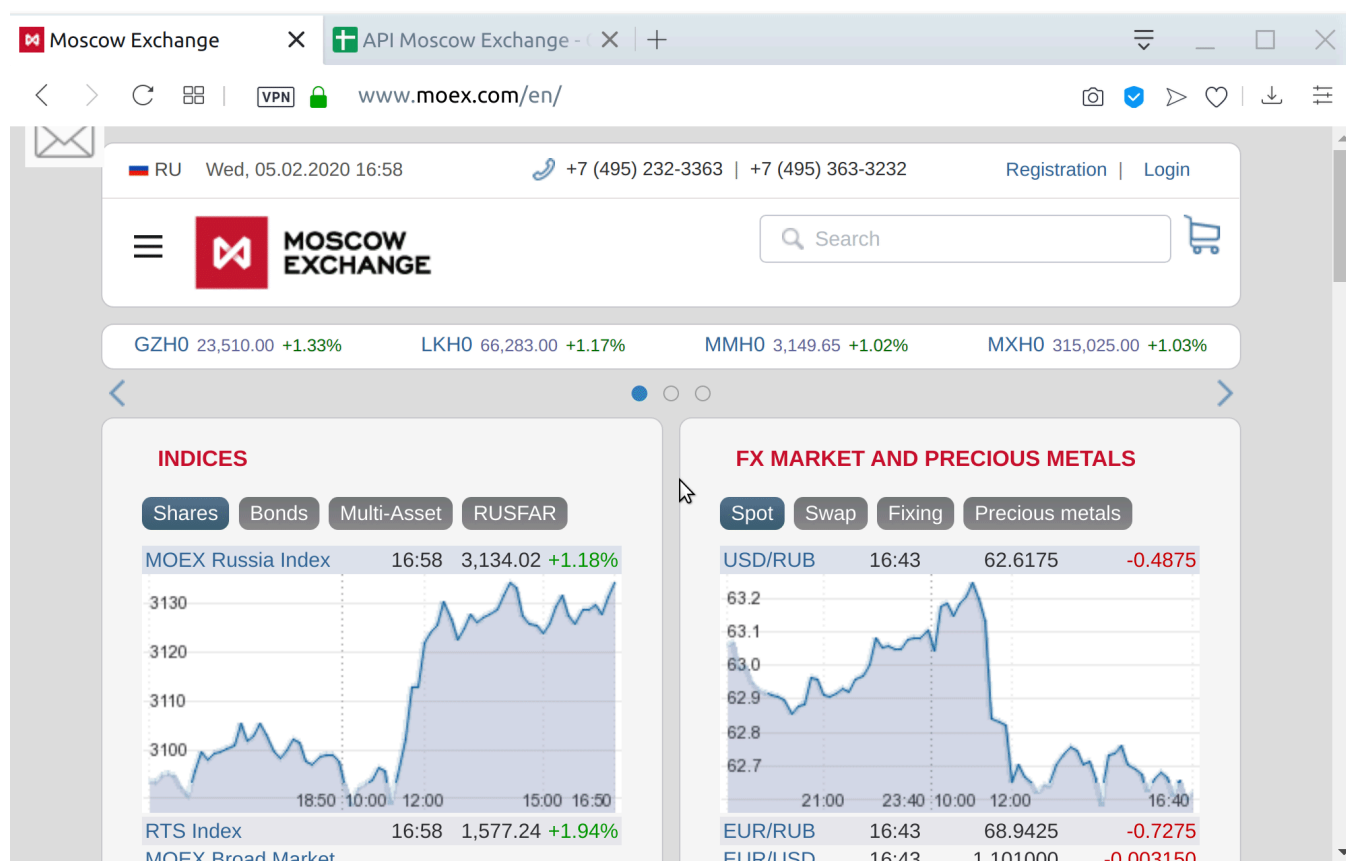
7 фев 2020 в 16:53

## Free API Moscow Stock Exchange (MOEX) in Google Sheets

🕒 2 мин 👁 10K

API\*, Data Mining\*, Google API\*, Алгоритмы\*, Финансы в IT

Last year the number of private investors at Moscow Stock Exchange (MOEX) has doubled and reached 3.86 million: about 1.9 million people have opened accounts at MOEX in 2019. The Saint Petersburg Stock Exchange which specializes in trading of foreign company shares has seen its accounts increase three times from 910,000 to 3,06 million over the past year.



This means that almost 2 million newbies without any actual trading experience and lacking any specialized software for trading/position analysis have entered the market.

While the broker's mobile applications designed for trading are continuously updated and, in general, quite user-friendly, the position analysis, particularly when several brokers are used, could raise issues. Google Sheets using free MOEX API may become a free solution equipped with automatically downloaded asset prices and parameters.

## MOEX API in Google Spreadsheets

There are two options to be used with MOEX API:

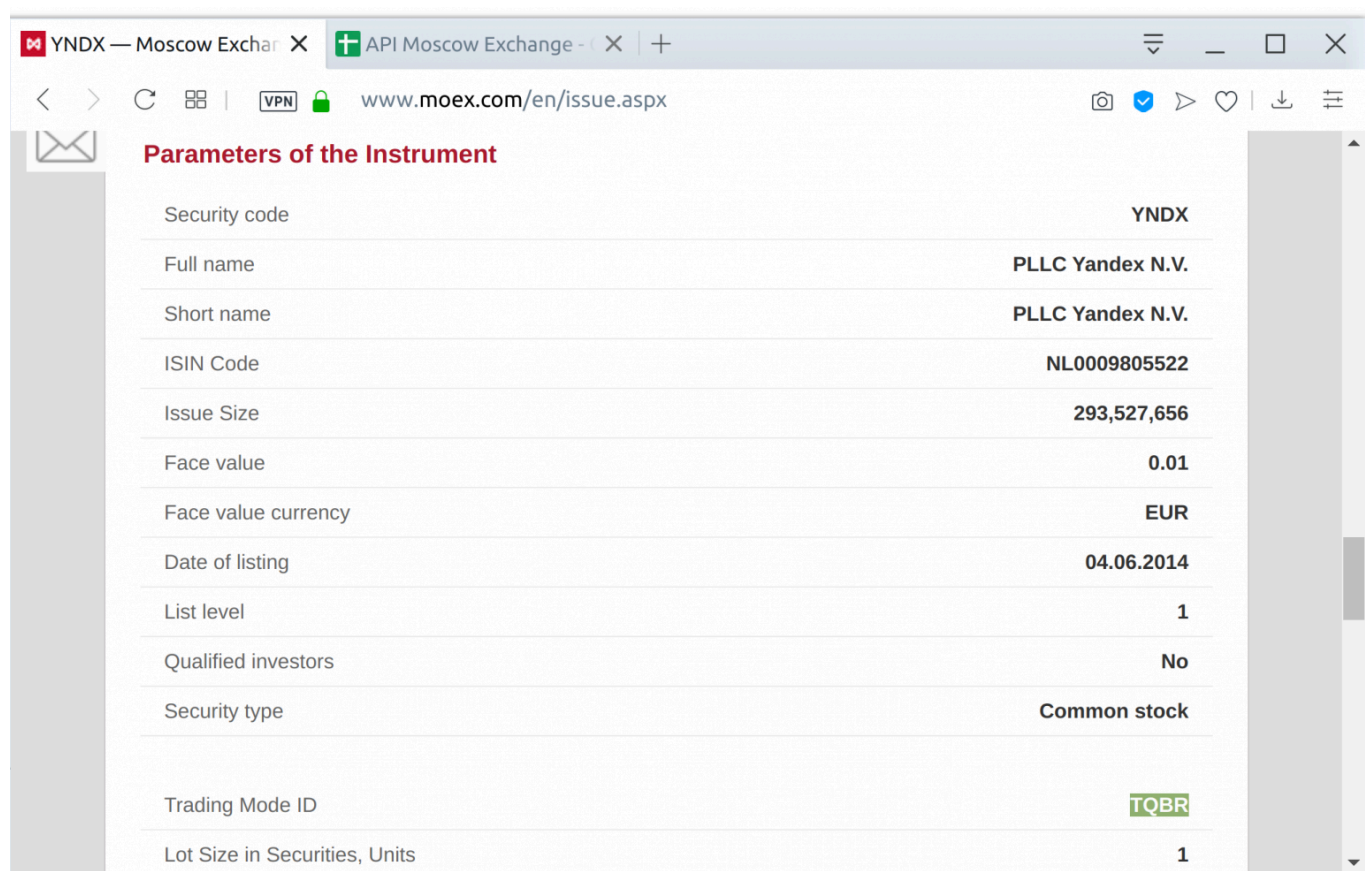
- Formulas
- Google Apps Script

However, it appears that scripts used in free documents usually confuse people, especially if these people have some investments. People are even more confused if they do not understand the script language. That's why I would like to focus on formulas only.

General description and explanation of all the requests that you can send to MOEX API is provided in the guidebook. However, I, for one, did not find this [guidebook](#) that easy to understand, so I had to spend quite a lot of time to cope with it. For that reason, I made [a simple Google Sheet](#) with examples I use myself.

## Trading Mode Identifier

In MOEX API a lot of things depend on Trading Mode Identifier parameter (primary\_boardID). You can look up this parameter at their website using the [search function](#).

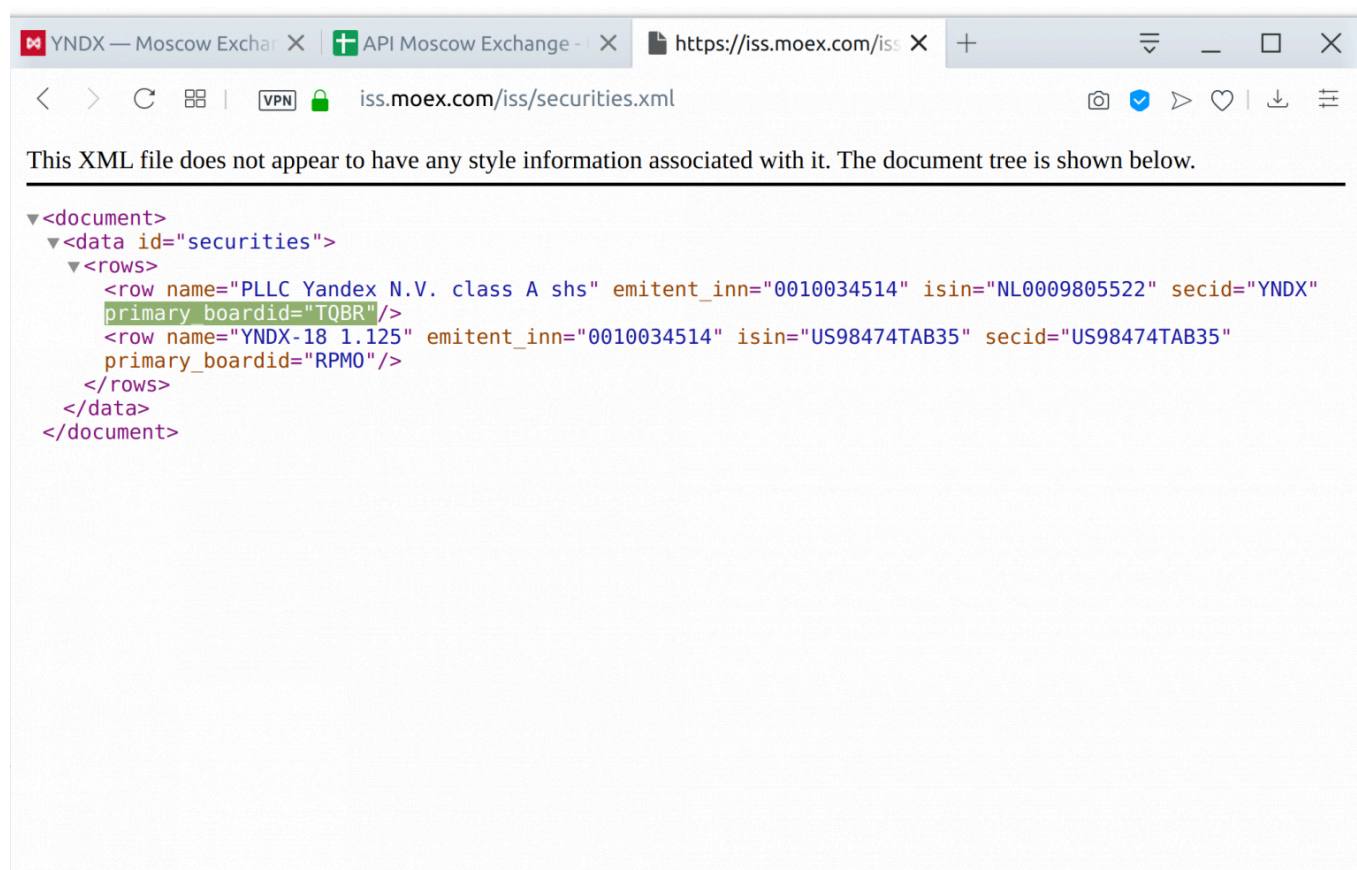


| Parameters of the Instrument  |                  |
|-------------------------------|------------------|
| Security code                 | YNDX             |
| Full name                     | PLLC Yandex N.V. |
| Short name                    | PLLC Yandex N.V. |
| ISIN Code                     | NL0009805522     |
| Issue Size                    | 293,527,656      |
| Face value                    | 0.01             |
| Face value currency           | EUR              |
| Date of listing               | 04.06.2014       |
| List level                    | 1                |
| Qualified investors           | No               |
| Security type                 | Common stock     |
| Trading Mode ID               | TQBR             |
| Lot Size in Securities, Units | 1                |

### Trading Mode ID

You can also find this identifier using [HTTP request to API](#):

```
https://iss.moex.com/iss/securities.xml?q=WRITE THE FULL INSTUMENT NAME OR ITS PART HERE
```



Trading Mode ID

## Retrieve stock / bonds names at MOEX

It is really convenient that you can get the full security name. You can also get the short security name automatically.

The screenshot shows a Google Sheet interface with the title 'API Moscow Exchange'. The formula bar contains the following formula:

```
=IMPORTxml("https://iss.moex.com/iss/engines/stock/markets/shares/boards/TQBR/securities.xml?iss.meta=off&iss.only=securities&securities.columns=SECID,LATNAME", concatenate("//row[@SECID='", A3, "']/@LATNAME"))
```

The sheet displays a table with the following data:

|    | A                         | B                                                                                                                           | C                            |
|----|---------------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------------|
| 1  | <b>Getting stock name</b> |                                                                                                                             |                              |
| 2  | Security code             | Boardid search link:                                                                                                        | Name:                        |
| 3  | SBER                      | <a href="https://iss.moex.com/iss/securities.xml?q=SBER">https://iss.moex.com/iss/securities.xml?q=SBER</a>                 | Sberbank                     |
| 4  |                           |                                                                                                                             |                              |
| 5  | <b>Getting ETF name</b>   |                                                                                                                             |                              |
| 6  | Security code             | Boardid search link:                                                                                                        | Name:                        |
| 7  | FXMM                      | <a href="https://iss.moex.com/iss/securities.xml?q=FXMM">https://iss.moex.com/iss/securities.xml?q=FXMM</a>                 | FinEx CASH EQUIVALENTS USITS |
| 8  |                           |                                                                                                                             |                              |
| 9  | <b>Getting OFZ name</b>   |                                                                                                                             |                              |
| 10 | SECID                     | Boardid search link:                                                                                                        | Name:                        |
| 11 | SU29006RMFS2              | <a href="https://iss.moex.com/iss/securities.xml?q=SU29006RMFS2">https://iss.moex.com/iss/securities.xml?q=SU29006RMFS2</a> | OFZ-PD 29006                 |

At the bottom of the sheet, there are tabs for 'Description', 'Names', 'Prices', and 'Dividends'. The 'Names' tab is currently selected.

Google Spreadsheets

## Retrieve stock / bonds prices at MOEX

You can use numerous websites to receive prices for Russian assets, but when it comes to MOEX API relevant examples are introduced on this tab.



The screenshot shows a Google Sheet titled "API Moscow Exchange" with a formula bar containing the following formula:

```
=IMPORTxml("https://iss.moex.com/iss/engines/stock/markets/bonds/boards/TQOB/securities.xml?iss.meta=off&iss.only=securities&securities.columns=SECID,PREVADMITTEDQUOTE", concatenate("//row[@SECID='", A11, "']/@PREVADMITTEDQUOTE"))
```

The sheet displays a table with two columns, A and B, showing stock prices. The table is divided into three sections: "Getting ETF Price", "Getting OFZ Price", and "Getting corporate bond price".

|    | A                                   | B        |
|----|-------------------------------------|----------|
| 5  | <b>Getting ETF Price</b>            |          |
| 6  | Security code                       | Price:   |
| 7  | FXMM                                | 1,590.80 |
| 8  |                                     |          |
| 9  | <b>Getting OFZ Price</b>            |          |
| 10 | SECID                               | Price:   |
| 11 | SU29006RMFS2                        | 106.24   |
| 12 |                                     |          |
| 13 | <b>Getting corporate bond price</b> |          |
| 14 | SECID                               | Price:   |
| 15 | RU000A1018X4                        | 100.50   |

The bottom of the sheet shows a tab labeled "Prices" with a dropdown menu for "Description" and "Names".

[Google Spreadsheets](#)

## Retrieve next coupon payment at MOEX

You can receive coupon date and its value (either corporate or Federal Loan Bonds (OFZ) and Eurobonds) automatically.

The screenshot shows a Google Sheet interface with the title 'API Moscow Exchange'. The formula bar contains the following XML import formula:

```
=IMPORTxml("https://iss.moex.com/iss/engines/stock/markets/bonds/boards/TQOB/securities.xml?iss.meta=off&iss.only=securities&securities.columns=SECID,NEXTCOUPON,COUPONVALUE", concatenate("//row[@SECID='", A3, "']/@NEXTCOUPON"))
```

The spreadsheet displays data for two types of bonds:

|   | A                                                                  | B          | C      |
|---|--------------------------------------------------------------------|------------|--------|
| 1 | <b>Getting the date of the next coupon and value for OFZ</b>       |            |        |
| 2 | SECID                                                              | Date:      | Value: |
| 3 | SU29006RMFS2                                                       | 2020-08-05 | 38.64  |
| 4 |                                                                    |            |        |
| 5 | <b>Getting the next coupon date and value for a corporate bond</b> |            |        |
| 6 | SECID                                                              | Date:      | Value: |
| 7 | RU000A1018X4                                                       | 2020-06-25 | 32.91  |
| 8 |                                                                    |            |        |

At the bottom, there is an 'Add' button with '1000' and the text 'more rows at bottom.' The bottom navigation bar shows tabs for 'Names', 'Prices', 'Dividends', and 'Dividend yield'.

[Google Spreadsheets](#)

## Retrieve yield at MOEX

Unfortunately, you can obtain the dividend yield as of a specific date represented in a single formula only for OFZ, as they are very shortlisted. For corporate bonds, you'll have to pick them out in the script or choose the initial search position manually.

YNDX — Moscow Exchar X API Moscow Exchange - X

docs.google.com/spreadsheets/d/105nC1gyPcgf-p8xJtoPnrl65-MDyv9DKk

API Moscow Exchange

File Edit View Insert Format Data Tools Add-ons Help

100% View only

```
=IMPORTXML(concatenate("http://iss.moex.com/iss/history/engines/stock/markets/bonds/boards/TQOB/securities.xml?iss.meta=off&iss.only=history&history.columns=SECID,YIELDATWAP&start=0&date=",TEXT(B3,"yyyy-mm-dd")),concatenate("//row[@SECID=",A3,"']/@YIELDATWAP"))
```

|   | A                                                      | B            | C             |
|---|--------------------------------------------------------|--------------|---------------|
| 1 | <b>Specific date dividend yield for OFZ</b>            |              |               |
| 2 | <b>SECID</b>                                           | <b>Date:</b> | <b>Value:</b> |
| 3 | SU29006RMFS2                                           | 2020-01-14   | 7.37          |
| 4 |                                                        |              |               |
| 5 | <b>Specific date dividend yield for corporate bond</b> |              |               |
| 6 | <b>SECID</b>                                           | <b>Date:</b> | <b>Value:</b> |
| 7 | RU000A1018X4                                           | 2020-01-15   | 6.64          |
| 8 |                                                        |              |               |

Add 1000 more rows at bottom.

Prices Dividends Dividend yield Offe

Google Spreadsheets

## Retrieve offer dates at MOEX

Planning your own funds becomes much easier, when you receive offer dates automatically.



The screenshot shows a Google Sheet interface with the title 'API Moscow Exchange'. The formula bar contains the following formula:

```
=IFNA(
  IMPORTXML("https://iss.moex.com/iss/engines/stock/markets/bonds/boards/EQOB/securities.xml?
  iss.meta=off&iss.only=securities&securities.columns=SECID,OFFERDATE",
  concatenate("//row[@SECID='",A7,"']/@OFFERDATE")),
  "Нет")
```

The spreadsheet displays a table with two columns: A (SECID) and B (Date). The table is divided into two sections: 'Getting offer date for OFZ' and 'Getting a corporate bond offer date'.

| Getting offer date for OFZ          |            |
|-------------------------------------|------------|
| SECID                               | Date:      |
| SU29006RMFS2                        | Нет        |
| Getting a corporate bond offer date |            |
| SECID                               | Date:      |
| RU000A0JW0S4                        | 2020-12-18 |

At the bottom of the sheet, there is a button labeled 'Add' with a value of '1000' and the text 'more rows at bottom.'.

[Google Spreadsheets](#)

## Conclusion

MOEX API gives you powerful capabilities. In this article I described only those tools that I use as a long-term private investor.

Please note that I have no relations with Moscow Exchange and I use MOEX API only for personal needs.

**Author:** Mikhail Shardin

[Моя онлайн-визитка](#)

[Telegram «Умный Дом Инвестора»](#)

February 6, 2020

**Теги:** Google Sheets, parsing, quotes, exchanges, investments, statistics, securities, stocks, bonds, stock trading

**Хэбы:** API, Data Mining, Google API, Алгоритмы, Финансы в IT

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**183**

Карма

**87.1**

Рейтинг

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 Комментарии 1

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ПОХОЖИЕ



rssdev10

23 часа назад

### Почему въехав по «визе талантов» в США я с радостью вернулся в Россию



Средний



32 мин



35K

Мнение

+177

114

522



melnik909

19 часов назад

### Вы не знаете CSS. Мои вопросы о CSS с ответами. Часть 2



Средний



7 мин



2.1K

Обзор

+39

32

1



DAN\_SEA

17 часов назад

### Генерация случайных чисел



Средний



10 мин



2.4K

Обзор

+32

26

34

**OrkBiotechnologist**

23 часа назад

## VPS за 139 рублей — дом для вашего резюме на основе Hugo



Простой



7 мин



8.5K

Тutorial



+28



48



12

**PatientZero**

2 часа назад

## Пишем стек TCP/IP с нуля: Ethernet, ARP, IPv4 и ICMPv4



Простой



13 мин



940

Tutorial

Перевод



+20



34



1

**tertiumnon**

17 часов назад

## Минимум книг, которые нужно прочитать начинающему или продолжающему свою кривую обучения программисту



Простой



3 мин



9.1K

Обзор



+19



196



21

**lbkanter**

1 час назад

## Бэкдор Auto-color: разбор угрозы, технический анализ и способы защиты



Средний



4 мин



307

Обзор



+16



5



2

**FlatSpike**

19 часов назад

## Создаём многомодульную библиотеку на Android: как же собрать fat-aar?

**Средний**

19 мин



535

Кейс

**+13**

16



0

**alexander-shustanov**

19 часов назад

## В поисках идеального Database-клиента для IDE: Amplicode выбирает DBeaver

**Простой**

6 мин



2.6K

**+13**

14



7

**ptsecurity**

21 час назад

## Безопасность без боли: плагины, которые упрощают жизнь разработчикам



7 мин



948

Кейс

**+12**

13



3

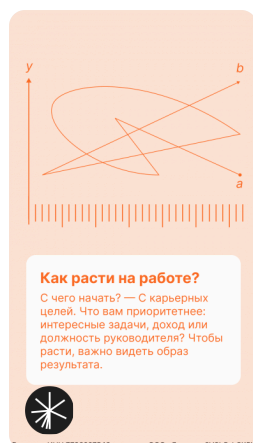
## Как избежать цифрового хаоса при бизнес-миграции

Турбо

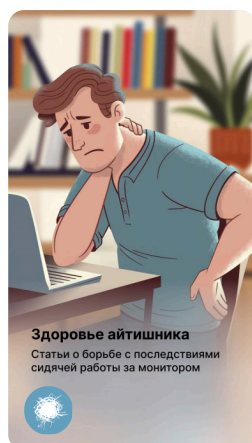
Показать еще

ИСТОРИИ





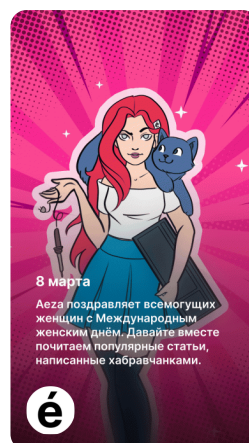
**Как расти на работе?**



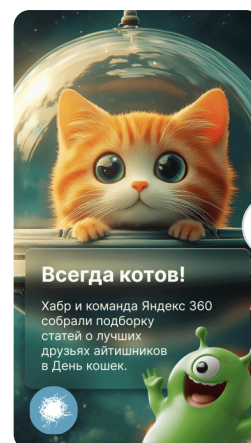
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По желанию · Яндекс Практикум

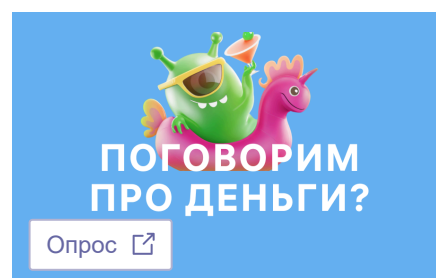


### Инженер по тестированию

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защищаем подключения с MFA

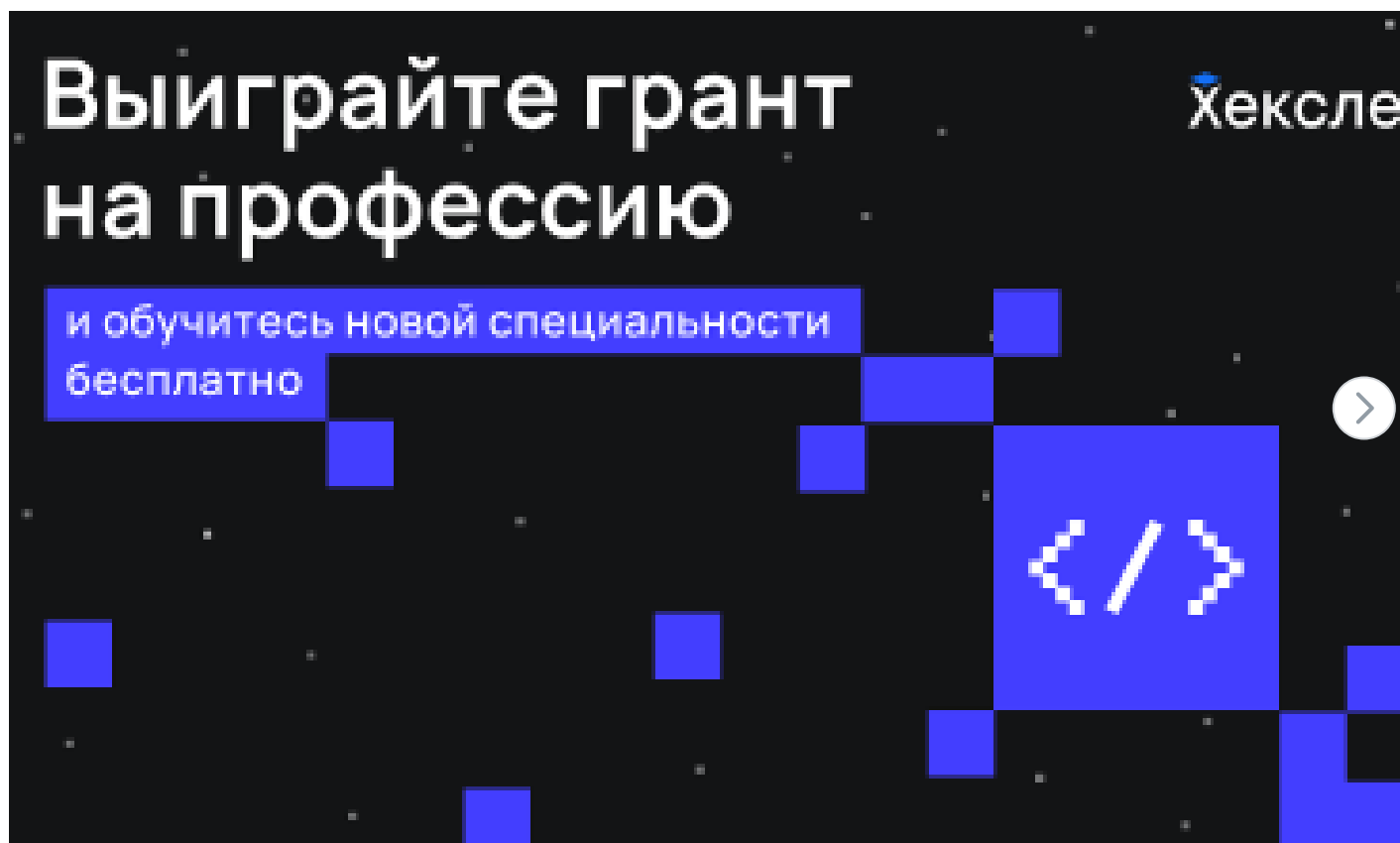
Как айтишники подходят к  
финансовому планированию?

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Data Scientist  
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