



Code Robot for Managers

Welcome to Code Robot!

The following pages summarize the vision of Code Robot and what it means to you and your organization.

If you have any further questions or would like to get in contact with us:

Email	support@code-robot.com
Phone	+1 (206) 802-0813
SMS	+1 (206) 802-0813
Twitter	@coderobot3

Content

Salesforce Basics A quick summary of development in a Salesforce environment.	p. 2
Code Robot Vision, Purpose and Benefits The value of automated tests, how Code Robot makes it much easier to create them, resulting in measurable benefits for the developer and the organization.	p. 3
How to use the generated code Get the most out of the generated code & benefits for you and your organization.	p. 4
Security All you need to know about the security aspects when installing and running Code Robot.	p. 5
Privacy We send information to our server but never your code nor your data	p. 6
Trial, Purchase and “My Account” Code Robot ownership and support.	p. 7



Governor Limits

Apex runs in a multitenant environment. To protect processes monopolizing shared resources, the Salesforce engine strictly enforces limits on the number of queried and changed records, processing time, number of callouts etc. It is up to the developer to design and implement against the governor limits.

Logging & Debugging

While logging and debugging is available in Salesforce, the log size is very limited and debugging is built on top of the logging functionality. In real-life environments, the limit is difficult to control as log settings need to be changed in classes containing referenced methods. Many professional Apex developers never rely on logging and debugging as it is too cumbersome to use.

Automated Test Classes

The Salesforce environment supports and requires code for automated testing. Developers write Apex classes flagged with the `@isTest` attribute. Executing a test class will cause the transactional part of the database to appear empty¹ to the process while all configurations are active.

Any test in Salesforce needs to set up the test data required in the targeted production code to successfully execute it.

Automated Tests are not optional

Salesforce requires at least 75% test code coverage of every Apex code, enforced when deploying code into a production environment. For a successful deployment, all existing and new test classes need execute successfully and cover 75% of all existing and new production code.

With new and existing code being under automated test, Salesforce ensures the core quality of the implementation over time. Of course, this largely depends on the effort invested in the test code.

Unit Tests supporting development

The support for unit tests by the Salesforce environment can and should be leveraged for the development process as logging & debugging are limited. This best practice is not widely executed by the Apex developer community, partly due to the necessity of setting up test data which is considered to be tedious work.

¹ The visibility of all existing data to a running test class can be activated but is rarely used because it is difficult to write tests without a known data set.



The vision behind Code Robot

The Code Robot team believes that the Apex @isTest functionality is a unique and fantastic concept. It is, in fact, the developer's strongest ally against the challenges in Salesforce development.

Well written tests, covering both code and data variations, provide a strong safety net for assuring the quality of new code and code changes without the time & effort overhead and unreliability of manual testing.

However, most Apex developers perceive writing test code as an additional effort to a coding environment that is challenging in the first place.

Especially setting up test data is a tedious, time consuming task – code like the one below can be found in many environments:

```
List<Account> accts = new List<Account>();  
  
for(Integer i=0;i<numAccts;i++) {  
    Account a = new Account(Name='TestAccount' + i);  
    accts.add(a);  
}  
insert accts;
```

The vision behind Code Robot is to make it easy for Salesforce developers to generate meaningful tests in a fraction of time, resulting in higher code quality and overall savings.

What Code Robot does

Code Robot generates Apex code from existing data in your org.

Developers pick any number of records and collect them in a project.

A simple click will generate deployable, readable Apex test code ready to use in the tests. Bulk inserts and the relationships within the project are handled by Code Robot.

Benefits for the Developer.

Depending on personal and organizational quality standards, Code Robot will save between 5% and 30% of coding time as it drastically simplifies the tedious task of setting up the data for test cases.

We will leave it up to you to decide whether the time savings translate into higher productivity, better test coverage and code quality or a reduction of your developers' stress level 😊

Benefits for the Organization

Code Robot will inevitably and (we think) obviously result in significant time savings and quality improvements. Salesforce code simply gets better with more passing unit tests that hit more data variations.

Beyond these easily measurable benefits, there is another level: we call it the ADH ("Apex Developer Happiness") factor. Developing in Salesforce is inherently complex and tedious: a fact that is neither reflected in modern agile methodologies nor in the ubiquitous demands of business requirements and schedules.

We think that Code Robot helps to increase your organizational ADH.

Everything helps. Keep them happy.



Code Robot for Developers Benefit from the generated code

How to use the Generated Code

Code Robot is designed to make your life easier, not to replace you and your ability to write magnificent (test) code!

1. Copy & paste single methods from the generated code and save time for a quick turnaround.
2. Leverage the ability of Code Robot to handle relationships.
Copy the whole test class including the automatic relationship handling and leave the order of inserts (and possibly updates) to Code Robot.
3. Use the bulk handling in Code Robot to generate tests that perform a significant number of inserts and updates: You'll be surprised how easy it can be to secure your code against a large number of records.
4. Record data from your test environment and use real information.
The result might surprise you (but better now than weeks later as a defect) ...
5. Use Code Robot to record scenarios from your production environment to research defects. We think Code Robot beats the development console.
6. We have also used Code Robot to move data from a test environment to production:
Copy the methods into a real Apex class and run it once with Anonymous Apex as part of the deployment process.

See more detailed examples at the end of this document.

Benefits for the Developer.

Depending on personal and organizational quality standards, Code Robot will save between 5% and 30% of coding time as it drastically simplifies the tedious task of setting up the data for test cases.

We will leave it up to you to decide whether the time savings translate into higher productivity, better test coverage and code quality or a reduction of your stress level 😊

Benefits for the Organization

Code Robot will inevitably and (we think) obviously result in significant time savings and quality improvements. Salesforce code simply gets better with more passing unit tests that hit more data variations.

Beyond these easily measurable benefits, there is another level: we call it the ADH ("Apex Developer Happiness") factor. Developing in Salesforce is inherently complex and tedious: a fact that is neither reflected in modern agile methodologies nor in the ubiquitous demands of business requirements and schedules.

We think that Code Robot helps to increase your organizational ADH. Everything helps. Keep them happy.

Pricing

A single user Enterprise license starts at \$83 per user and month, for a Consulting license \$108 with a yearly commitment (\$100/\$130 for month-to-month). Volume pricing is available.

The Enterprise license is for developers working within one production ORG and works with any number of development and test environments.

The consulting license is designed for users working with many different production, test and development ORGs.



Code Robot for Developers Security

Security Aspects

Code Robot is a development and administrative tool and not designed for end users.

We recommend limiting access to Code Robot by selecting “Install for Admins Only” or for specific profiles during the installation process:



If you need to make Code Robot available to other users of your ORG after the installation, enable the visibility to the “Code Robot” app for the desired profile in Manage Users/Profiles/Custom App Settings.

Custom App Settings	Visible	Default
App Launcher (standard__AppLauncher)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Code Robot (CodeRobot__Code_Robot)	<input type="checkbox"/>	<input type="checkbox"/>
Community (standard__Community)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Read-Only

Code Robot operates in read-only mode and never alters or creates data in the environment it executes in. All DML operations are limited to objects that are part of the package (the CodeRobot namespace).

No code or data storage

Every time you click “Generate Code”, Code Robot will read the data referenced in the project content and convert it into Apex code.

Neither field/value pairs nor the generated code will be stored in the database.

The code always reflects the data currently present in the database.

Data Access

Standard and Custom Object access is defined by the user’s profile settings: a minimum of “Read” access must be configured for the profile.

Code Robot enforces the organization’s sharing rules by using **with sharing** in all classes.

As a result, a user working with Code Robot can convert data from any supported and accessible record into Apex test code.

Records without granted security and/or sharing rules will not be available.

Field-Level Security

During the code generation process, Code Robot will try to read every field of the included records, effectively bypassing the configured field-level security to deliver on the ultimate objective behind Code Robot: making it easier for developers to master the data complexities in a Salesforce environment.

Encrypted Fields

As any Salesforce application using the API, Code Robot can and will read values of custom encrypted fields and convert them into plain Apex test code.



Privacy Aspects

As an essential part of its functionality, Code Robot sends user and usage information to our CRM server (see below for more details).

CODE ROBOT LLC will only share this data with you and your organization, and will not sell or share it with any outside party.

What Code Robot sends

Every time you click “Generate Code”, the app will transmit usage information and some of your UserInfo data to our CRM server:

- Your Salesforce username
- Your Salesforce email address
- Your ORG-ID

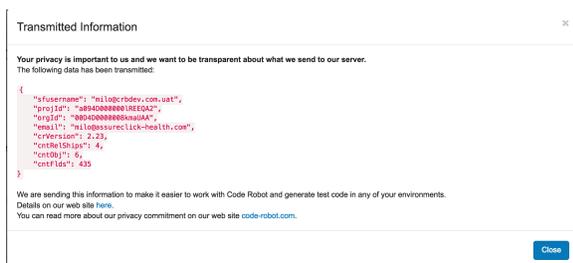
Usage data includes:

- Record, field and relationship count of the project
- Project ID

Code Robot displays the sent data elements after each code generation by clicking on the info icon:

Generated Code ⓘ

Code Robot will show the sent data in JSON format:



Why do we send UserInfo data?

Code Robot offers a free trial period that allows any user full access to its functionality for a limited number of times. UserInfo data elements are used to determine the usage.

After the purchase, we leverage the same information to verify the license information and grant our customers unlimited seamless access to Code Robot.

- For an Enterprise license, we match the Salesforce username against our records.
- For a Consulting license, the match is based on the Salesforce email address.

The match values can be maintained by the customer using “My Account” on our website.

We believe this solution is more convenient for a developer accessing many ORGs on a regular basis than license keys or similar designs: Code Robot will just work; anytime and anywhere.

Why do we send usage data?

As part of our Code Robot Quality Initiative, we transmit and store the number of objects, relationships and fields pulled into the code generation. Storing the data in our CRM environment, our customers can leverage this information through reports available in “My Account”.

- Number of code generations over time
- Complexity of the code generated
- Usage of Code Robot within the team for multiple-user licenses

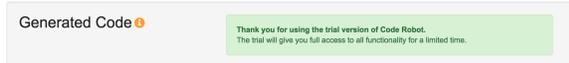
Code Robot sends only aggregated information. Neither the data in your ORG nor the generated code is ever transmitted to us.



Code Robot for Developers Trial, Purchase and “My Account”

Code Robot Trial

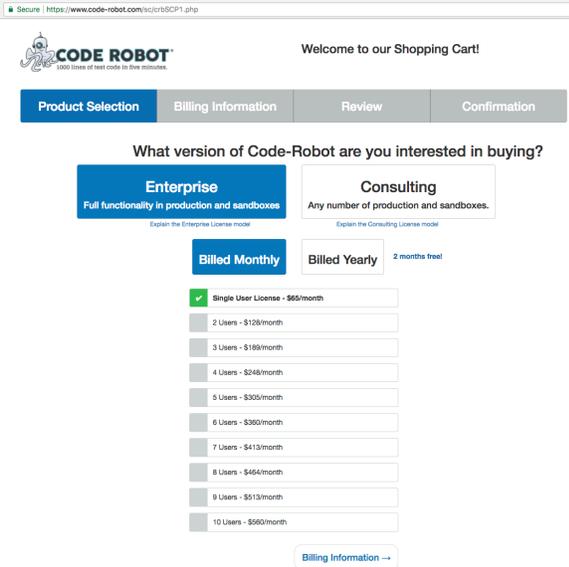
After the installation, Code Robot is fully functional for limited number of invocations and display a trial mode message in the user interface:



Once the free usage has been exceeded, Code Robot will not generate all the code, but start to omit the content of some or all methods. Time to purchase Code Robot!

Purchase Code Robot

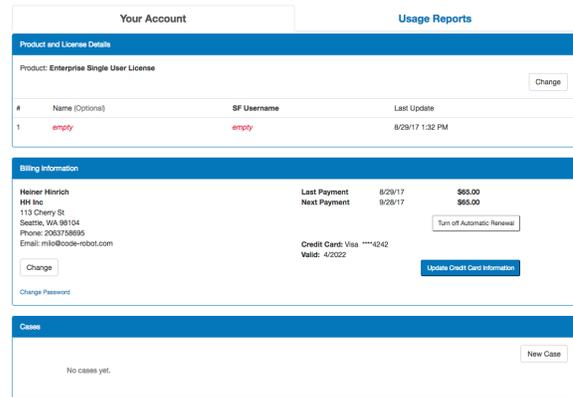
You can purchase Code Robot on our website www.code-robot.com. We offer month-to-month subscriptions via credit cards and yearly subscriptions via credit cards and check/wire transfers.



In case your organization requires a formal quote/invoice process, use the same shopping cart functionality on our web site and select “Quote” or “Invoice” on the second page (yearly subscriptions only).

Account Setup

We will send you an email with a link to set up your account immediately after a credit card purchase or after we received the payment of your invoice. Accessible through our website using the link “My Account”, this is the place to change you license information, change your personal information and submit cases.



License Maintenance

The first step to activate your license is to enter the credentials you are using in your Salesforce ORGs.

For Enterprise licenses, enter your Salesforce username (preferably the one you use in production as this will automatically activate your license in any test and development environment).

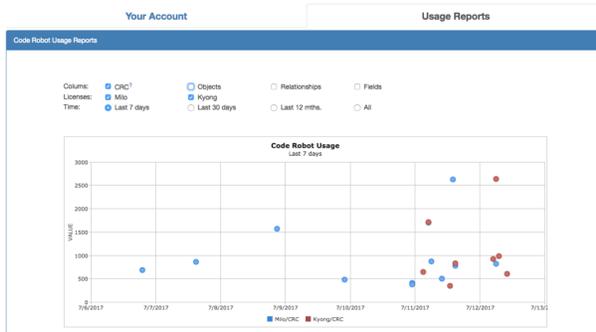
For Consulting licenses, enter your email address(es) to make Code Robot work in any environment you are working with.



Code Robot for Developers Trial, Purchase and “My Account”

Usage Reporting

The “My Account” section gives you access to the Code Robot usage reports. View your own and (in case of a volume license) your team members’ usage of Code Robot and select the values that reflect best the amount and complexity of your test code generation.



Support

Licensed users can submit a case in the “My Account” section available on our website and will receive an answer within one business day.

For users still in trial mode, please send an email to:
support@code-robot.com

Contact Us! What do you think?

Email: info@code-robot.com
Phone: (206) 802-0813
SMS: (206) 802-0813