

# Introducing Apex

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# Overview



## The Salesforce automation landscape

- Declarative tools
- Programmatic tools
- When and when NOT to code

## Apex triggers overview

- What is an Apex trigger?
- Why we learn triggers first
- Trigger requirements

## Coding editors

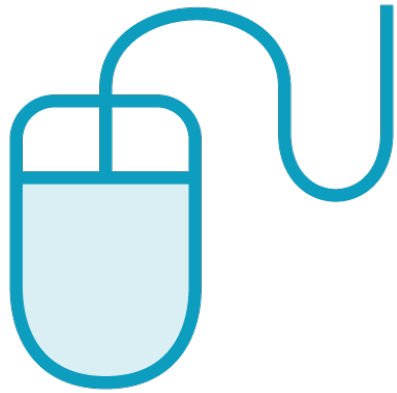


# The Salesforce Automation Landscape

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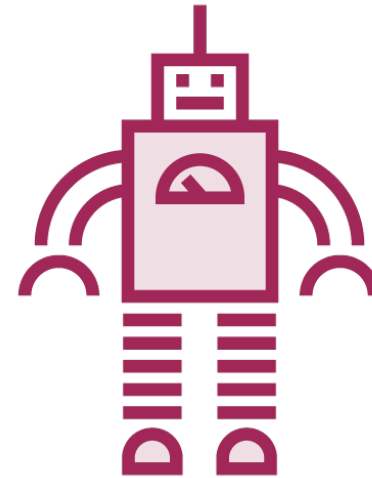


# The Salesforce Automation Landscape



## Declarative Tools

*“Point and Click Admins”*



## Coding Tools

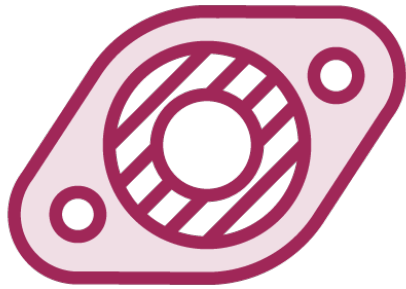
*“Salesforce Gods”*



Understand the tools  
available to you and when  
each should be applied



# Declarative Toolset



## Workflow Rules

Same object updates  
Email notifications

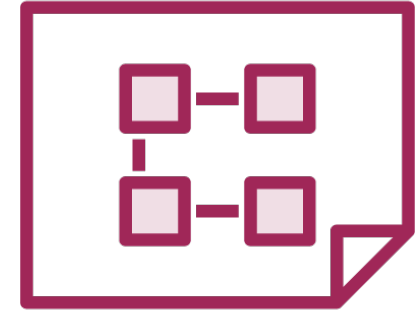
Limited applications!



## Process Builder

Related object updates  
Create a record

No unrelated objects!  
Bulk issues everywhere!



## Visual Flow

Unrelated object updates  
Variables & loops

Same learning curve as code,  
but without the benefits!



# Coding Toolset



## Back-end Code

Apex triggers  
Apex classes  
SOQL

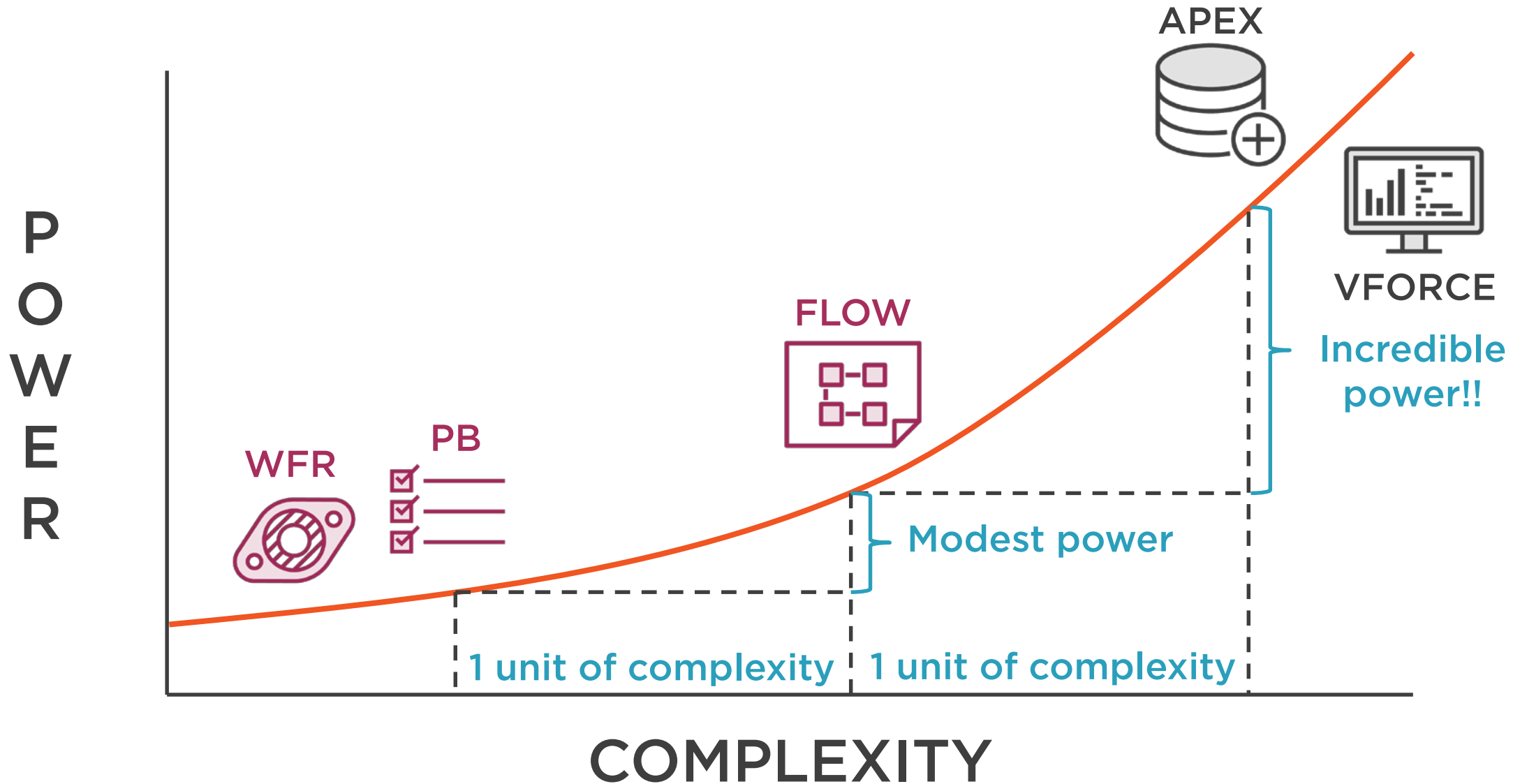


## Front-end Code

Visualforce  
Lightning

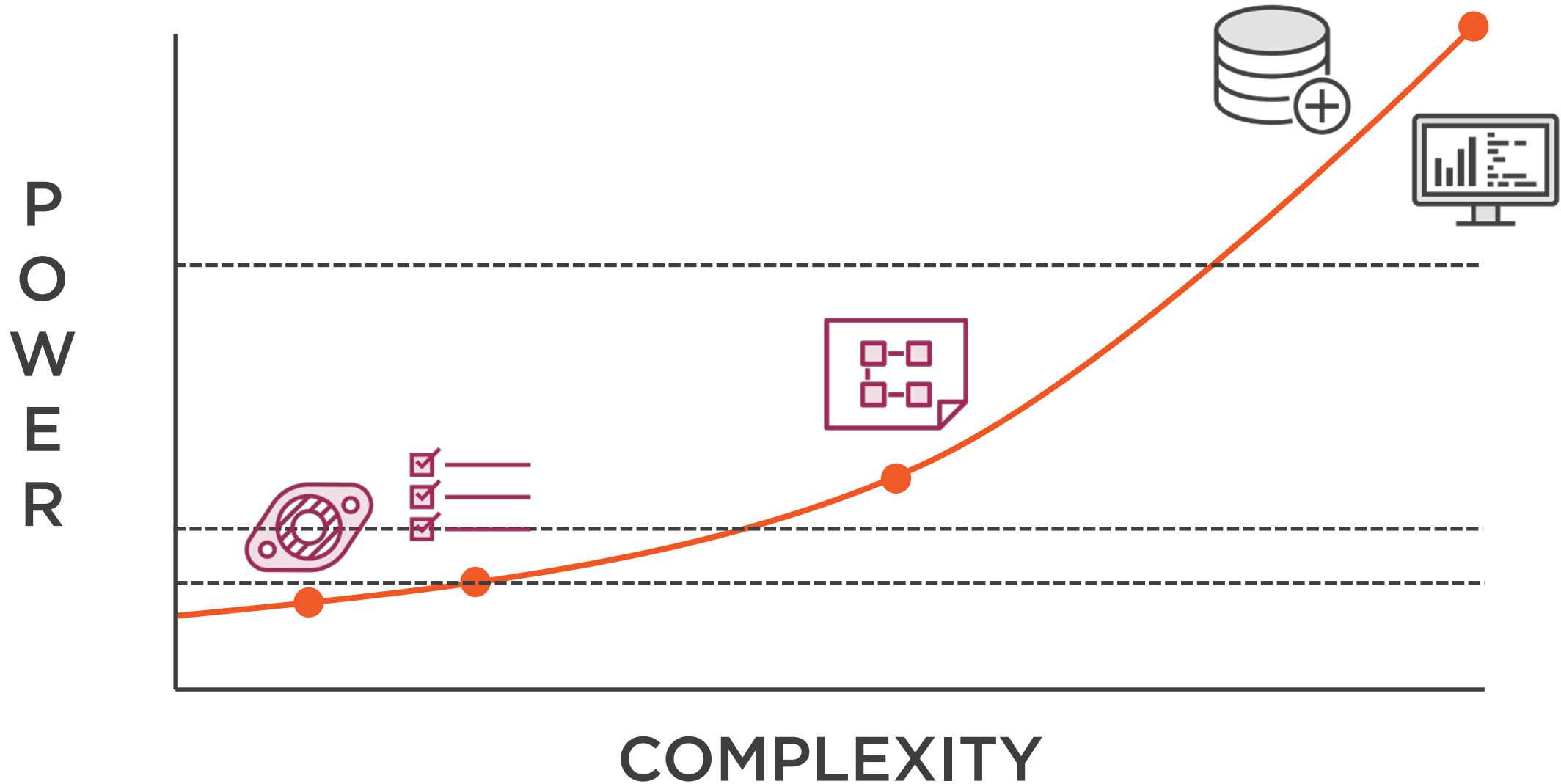


# The Salesforce Automation Landscape





# Which Tool Do I Use for My Project?



Apex Academy Rule #1:  
Don't write code unless you  
have to!



# Apex Triggers Overview

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# What is an Apex Trigger?



**Salesforce, in a nutshell**

**“A fancy database”**



# What is a Relational Database?

CONTACT

ID	Name	Account ID
003i0000001sppzy	Taylor Swift	001i0000000qeSKZ
003i0000000bWqFj	Parker Harris	001i0000001CGLvW
003i0000001TDLED	Marc Benioff	001i000000008ES3p

ACCOUNT

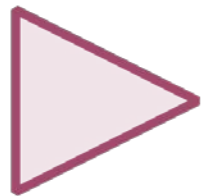
ID	Name	Industry
001i0000000qeSKZ	Google	Technology
001i000000008ES3k	Tesla Motors	Automotive
001i0000000azqHs	Coca Cola	Beverages



# How Triggers Work

ACCOUNT

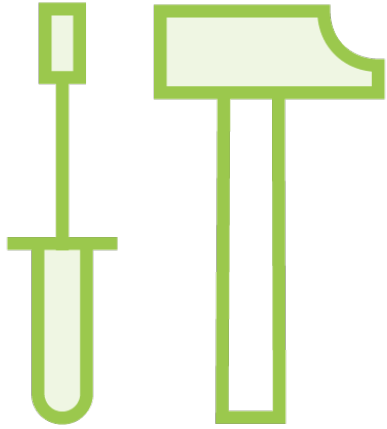
ID	Name	Industry
001i0000000qeSKZ	Alphabet	Technology
001i00000008ES3k	Tesla Motors	Automotive
001i0000000azqHs	Coca Cola	Beverages
001i0000000ceZaX	Amazon	E-Commerce
001i0000000ijKEB	Salesforce	Software



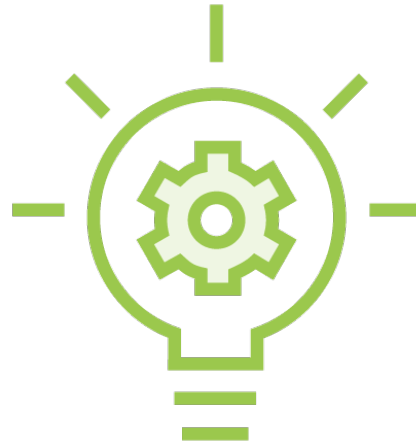
Trigger is executed!



# Three Reasons Why We Learn Triggers First



**Most commonly used  
coding tool**



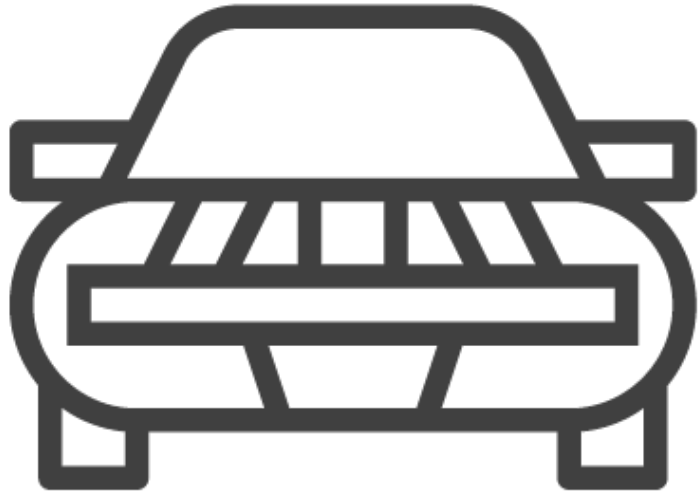
**Easy to learn!**



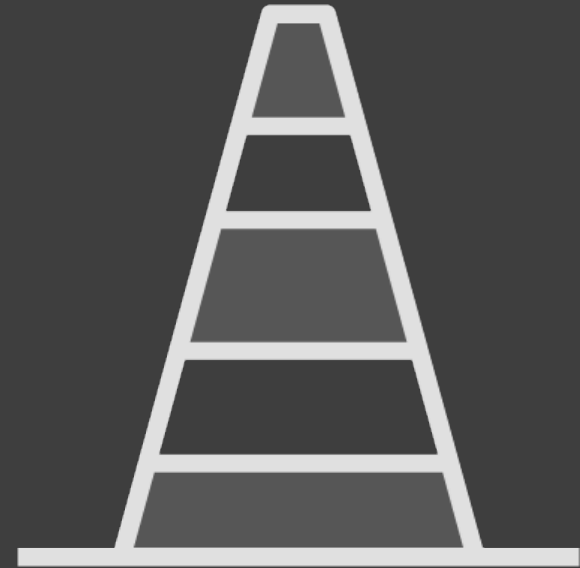
**Natural progression to  
other Salesforce  
coding tools**



# Trigger Requirements



**Trigger**



**Test Class**



Repeat after me:  
I love test classes.  
I love test classes.  
I love test classes.

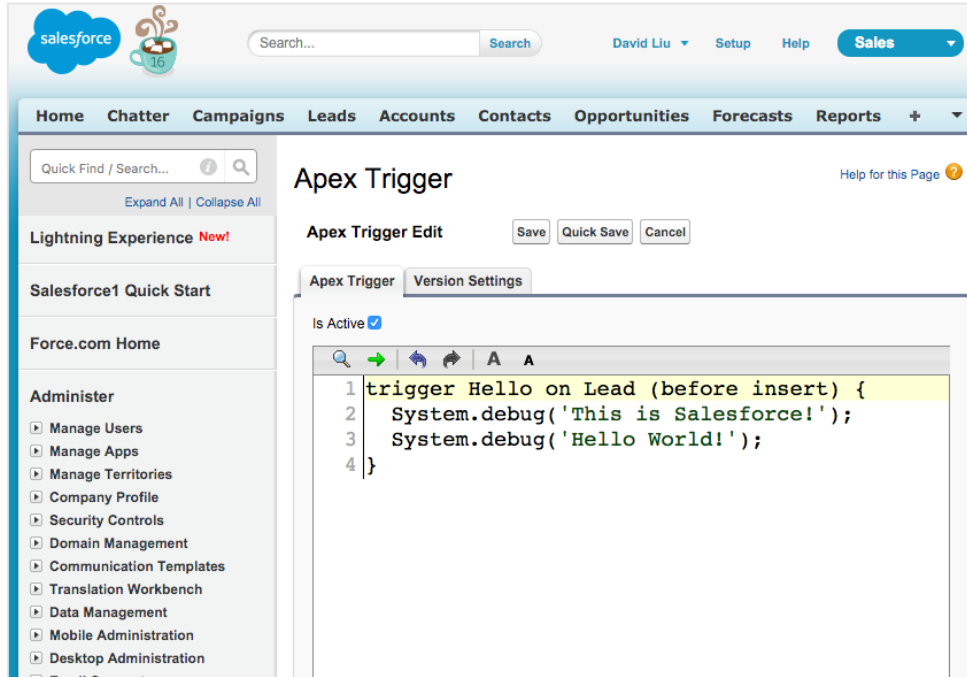


# Coding Editors

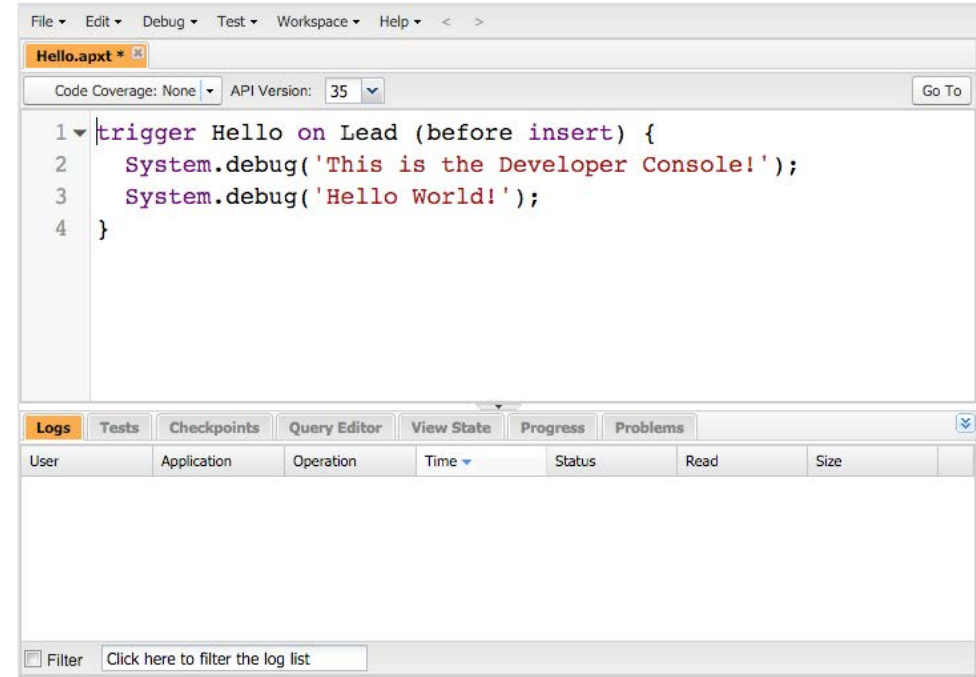
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# Salesforce Online Development Environments



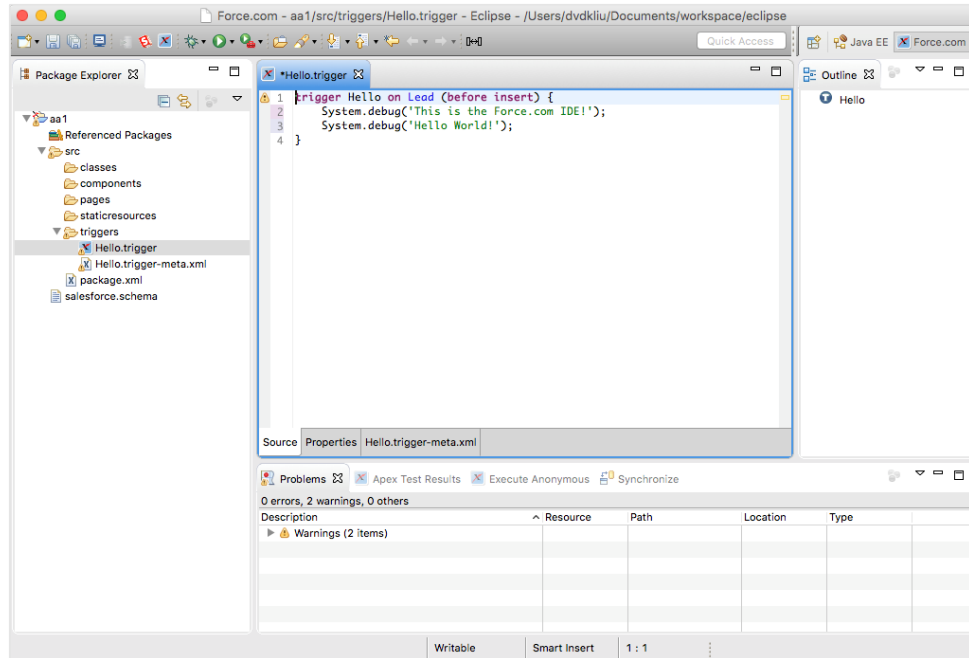
**Salesforce Setup**  
*Quickest, easiest way to code*



**Developer Console**  
*Feature rich and no downloads*

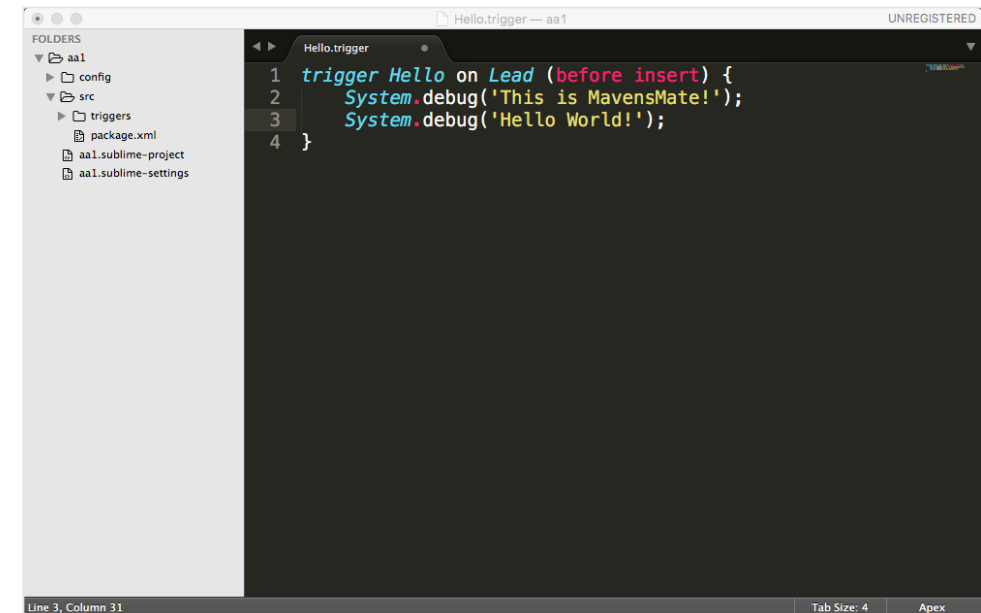


# Salesforce Offline Development Environments



## Force.com IDE

*Most popular coding environment*

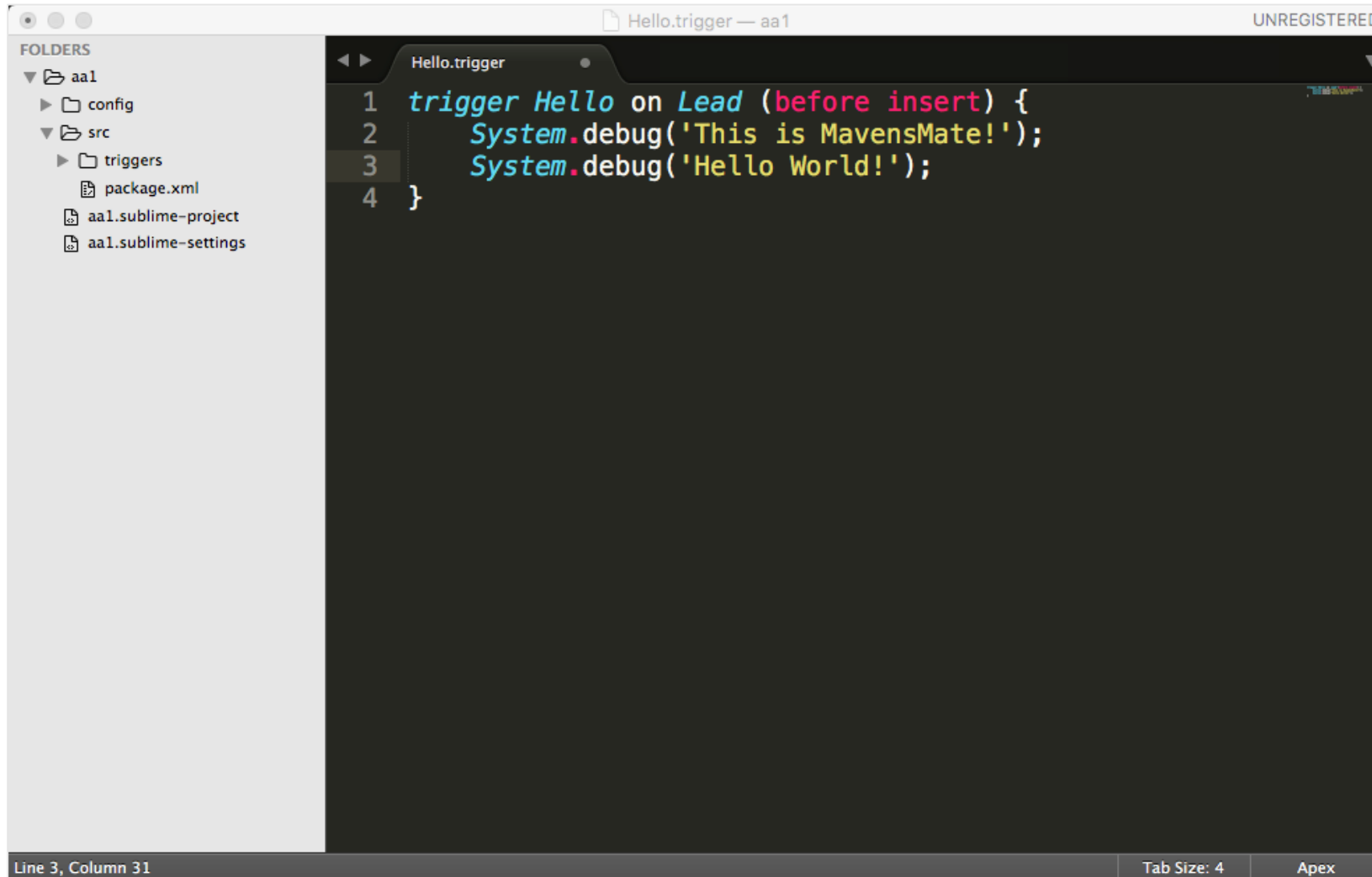


## MavensMate

*Speed demon with a slick UI*



# And the Winner Is... **MavensMate!**



The screenshot shows the MavensMate IDE interface. On the left, a 'FOLDERS' sidebar displays the project structure: 'aa1' (expanded) contains 'config', 'src' (expanded), 'triggers' (expanded), 'package.xml', 'aa1.sublime-project', and 'aa1.sublime-settings'. The main editor area shows a file named 'Hello.trigger' with the following Apex code:

```
1 trigger Hello on Lead (before insert) {  
2     System.debug('This is MavensMate!');  
3     System.debug('Hello World!');  
4 }
```

The status bar at the bottom indicates 'Line 3, Column 31', 'Tab Size: 4', and 'Apex'.



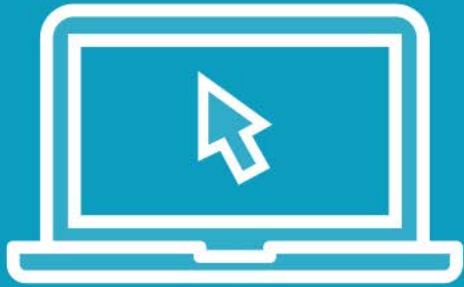
(Just kidding!)



...or am I?



# Demo



## How to install MAVENS Mate





# Summary



## **Don't write code unless you have to**

- Every good developer is a good admin

## **Apex triggers**

- “Triggered” by database changes
- Always require a test class
- Naturally progress to other Salesforce technologies

## **Code with any editor you choose**

