



Web-based Application Platforms: Part 1

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Heroku: Stats

- Site launch 1/2008 (Beta)
- Total funding \$3.02 M
- Employees 3
- User base ?

About:

Heroku is an online deployment system for Ruby on Rails apps. You can create a rails app via your browser, and then with an online editor, you begin to customize it. Their focus is on providing the popular Ruby on Rails platform with the easiest deployment possible: one that regular users do not have to worry about.

Heroku: Main Concepts

- Browser-based development
 - Code tab: directory tree and editor
 - Data tab : import database schema, export, purge
 - Log tab : view log files
 - Console window available
- Can also develop on local machine and just upload project

Heroku: Editor

The screenshot shows the Heroku Editor interface. At the top, there are tabs for 'Code', 'Data', and 'Logs'. The main window is titled 'untitled-a915ca'. On the left, a file explorer shows a directory structure with folders like 'app', 'config', 'environments', 'initializers', 'db', 'doc', 'lib', 'log', 'public', 'script', 'test', 'tmp', and 'vendor'. The 'config' folder is expanded, showing files like 'boot.rb', 'database.yml', and 'environment.rb'. The 'environment.rb' file is selected and its content is displayed in the main editor area. The code in the editor is as follows:

```
RAILS_GEM_VERSION = '2.1'

# Bootstrap the Rails environment, frameworks, and default configuration
require File.join(File.dirname(__FILE__), 'boot')

Rails::Initializer.run do |config|
  # Settings in config/environments/* take precedence over those specified here.
  # Application configuration should go into files in config/initializers
  # -- all .rb files in that directory are automatically loaded.
  # See Rails::Configuration for more options.

  # Skip frameworks you're not going to use. To use Rails without a database
  # you must remove the Active Record framework.
  # config.frameworks -= [ :active_record, :active_resource, :action_mailer ]

  # Specify gems that this application depends on.
  # They can then be installed with "rake gems:install" on new installations.
  # config.gem "bj"
  # config.gem "hpricot", :version => '0.6', :source => "http://code.whytheluckystiff.net"
  # config.gem "aws-s3", :lib => "aws/s3"

  # Only load the plugins named here, in the order given. By default, all plugins
  # in vendor/plugins are loaded in alphabetical order.
  # :all can be used as a placeholder for all plugins not explicitly named
  # config.plugins = [ :exception_notification, :ssl_requirement, :all ]

  # Add additional load paths for your own custom dirs
  # config.load_paths += %W( #{RAILS_ROOT}/extras )
```

At the bottom of the editor, there is a Heroku logo and the text 'heroku'. In the bottom right corner, there is a user profile icon, the email 'john@bouldermail.com', and a 'Logout' link. The interface also includes a 'Revisions >>' link in the file explorer and a 'Saved' button in the top right of the editor area.

Heroku: Extras/Summary

- Version Control and complete Snapshots
- Control application visibility and edit access
- Hosted on Amazon EC2
- Integrated stack: web server, balancer, appserver cluster, database server
- Custom domain name settings

Takeaway:

- Full Ruby on Rails environment
- Work through browser or locally and upload
- No infrastructure worries

SalesFORCE.com: Stats

- Site launch 4/1999
- Total funding \$21 M (2004 went Public, 110 M Valuation)
- Employees 2606
- User base 38,100 customers, 900,000+ subscribers

About:

Force.com is the fastest platform for building and deploying enterprise applications. What used to take months can now be done in days or weeks. Unlike a stack of separately designed hardware and software products, Force.com speeds innovation through a powerful yet easy-to-use development model. Assemble applications with clicks, components and code then instantly deploy them to the salesforce.com infrastructure.

Force.com: Main Concepts: AppExch



Find, try, and install over 700 apps with just a click

force.com™
appexchange

725+ Apps
31,000 Apps Installed
245,000 Test Drives
355 Total ISVs
24 Japanese ISVs



Force.com: Main Concepts:UI



Create any user interface, for any application, or any device



- :: Build Any Form
- :: Create Any Button or Link
- :: Embed Any Mash-Up
- :: Use AJAX or Flex Anywhere

visualforce™

- :: Robust MVC Model
- :: Reuse through Visualforce Components
- :: Separation of coding and design
- :: Server-side access to server-data

Force.com: Main Concepts: Logic



Powerful workflow and logic, featuring the world's first on-demand programming language

apex
force.com code

Instantly Recognizable
by any Java Developer

- :: First Multi-Tenant Programming Language
- :: Programmatic Business Logic
- :: Stored Procedures
- :: Triggers
- :: Data Validation
- :: Complex Transactional Logic

Workflow:
7 Million Automated Tasks

- :: Declarative
- :: Programmatic
- :: Approvals
- :: Intelligent
- :: Time-Based
- :: Formulas
- :: Outbound Messaging

Force.com: Main Concepts: Integration



Proven integration success with over 1 billion API calls/month



Force.com: Main Concepts: Database

force.com™
platform as a service

Application Exchange

User Interface as a Service

Logic as a Service

Integration as a Service

Database as a Service

Global, Trusted, Secure Infrastructure

Development as a Service

Create any database for any app, without any software

6,000,000 Customizations

160,000 SQL Statements/Sec



- ⌘ Create any table
- ⌘ Add any field
- ⌘ Build any relationship
- ⌘ Security & sharing
- ⌘ Automatic audit history tracking
- ⌘ Automatic tuning
- ⌘ Automatic backups
- ⌘ Automatic upgrades

Force.com: Main Concepts: Secure



Trusted, secure & global delivery of over 100M transactions/day

100M+ Transactions Daily
225 ms Average Speed
70% Global Deployments

- ⌘ \$100 Million Investment
- ⌘ 2 Fully Mirrored Data Centers
- ⌘ Scalable Architecture
- ⌘ Disaster Recovery

Security:



- ⌘ SAS 70 Type II
- ⌘ SysTrust Certified
- ⌘ Network and Physical Security
- ⌘ IP Restricted Access Option
- ⌘ Flexible Single Sign-On Option
- ⌘ Two-Factor Option

Visibility:

The image shows a monitoring dashboard for trust.salesforce.com. It features a table with performance metrics and a logo for trust.salesforce.com.

Date	Number of Transactions	Avg Speed (seconds)*	APX (AP)	ESD (EPLA)	NAD
09/24/07	119,412,675	0.233	⊙	⊙	⊙
09/23/07	120,809,488	0.224	⊙	⊙	⊙
09/22/07	119,412,675	0.247	⊙	⊙	⊙
09/21/07	120,809,488	0.153	⊙	⊙	⊙
09/20/07	119,412,675	0.162	⊙	⊙	⊙

Force.com: Main Concepts: Develop

force.com
platform as a service

Application Exchange

User Interface as a Service

Logic as a Service

Integration as a Service

Database as a Service

Global, Trusted, Secure Infrastructure

Development as a Service

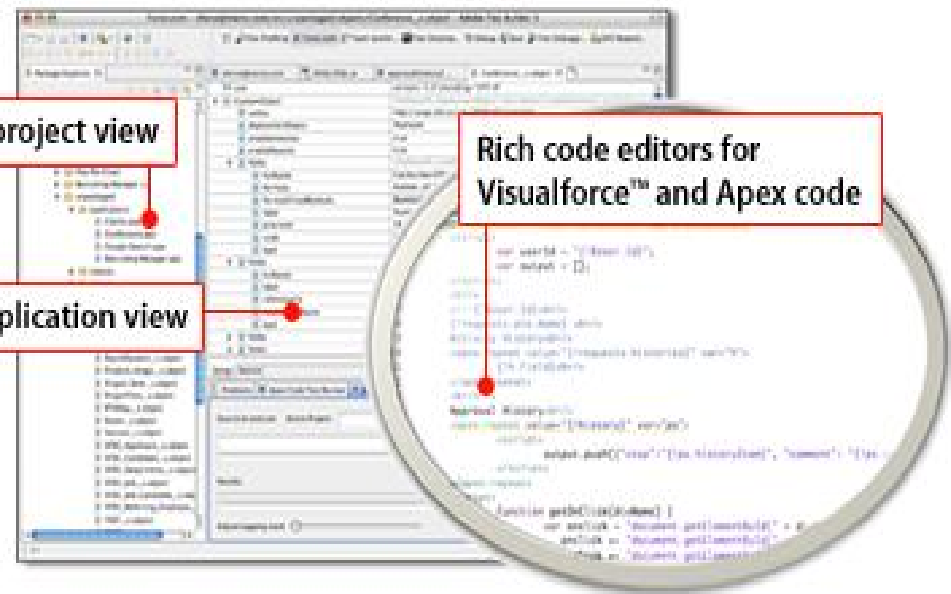
World's First IDE for On-Demand Development

NEW! **force.com**
integrated development environment

Single project view

XML application view

Rich code editors for
Visualforce™ and Apex code



Force.com:Develop: Web-based

The screenshot shows the Salesforce CRM interface. At the top, there is a navigation bar with tabs for Home, Leads, Contacts, Accounts, Opportunities, Forecasts, Contracts, Products, Reports, Documents, Dashboards, and Platforms. Below this is a sidebar menu with sections for Personal Setup, App Setup, Workflow & Approvals, and Develop. The main content area is titled 'Apps' and contains a definition of an app, a note about custom apps, and a table listing existing apps.

Personal Setup

- My Personal Information
- Email
- Import
- Desktop Integration

App Setup

- Customize
- Create
 - Apps
 - Custom Labels New!
 - Objects
 - Packages
 - Report Types
 - Tabs
- Workflow & Approvals
 - Workflow Rules
 - Approval Processes
 - Tasks
 - Email Alerts
 - Field Updates
 - Outbound Messages
 - Settings
- Develop
 - Apex Classes
 - API
 - Components
 - Email Services
 - Pages
 - S-Controls
 - Static Resources
 - Tools
 - View Installed Packages

Apps

An "app" is a group of tabs that works as a unit to provide application functionality. You can customize the standard apps provided by standard and custom tabs into new custom apps. With custom apps, you can extend the kinds of information that you manage and s

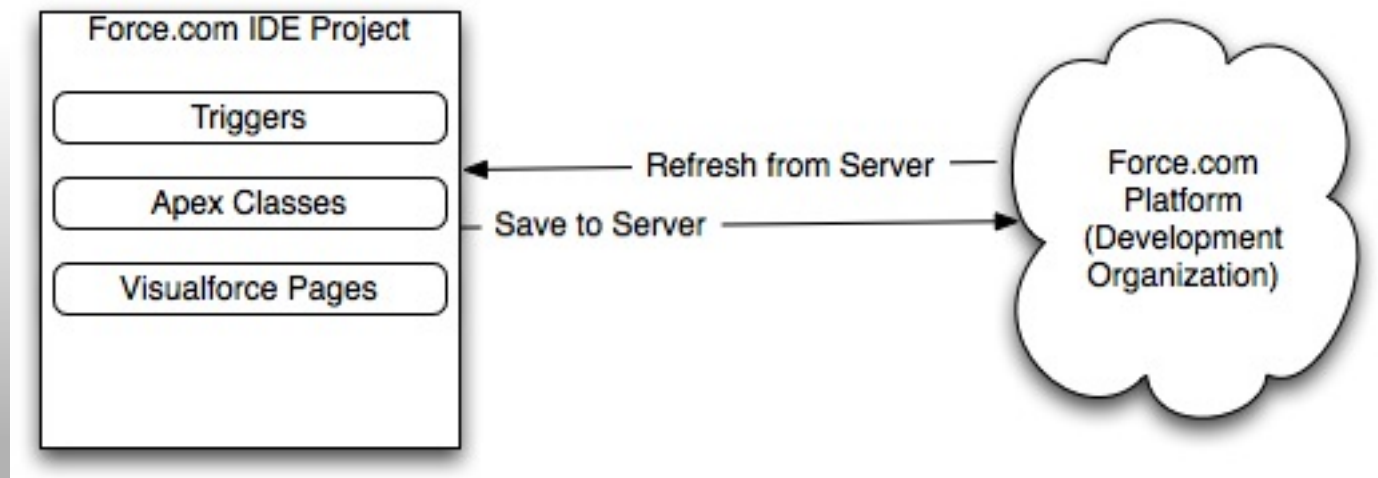
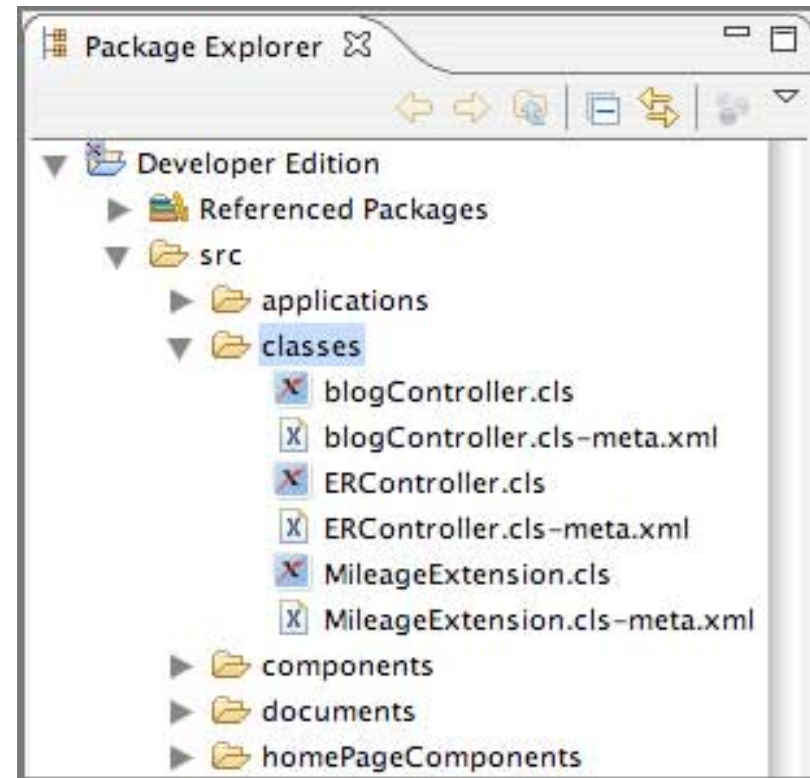
The Force.com platform is the on-demand multitasking environment offered by salesforce.com. It enables users to switch between ap

Note: Custom apps work in conjunction with User Profile Tab Visibility settings. [Click here](#) to view User Profiles now.

Action	App Label	Custom	Description
Edit	Call Center	<input type="checkbox"/>	State-of-the-Art On-Demand Customer Service
Edit	Marketing	<input type="checkbox"/>	Best-in-class on-demand marketing automation
Edit	Platform	<input type="checkbox"/>	The fundamental Force.com platform
Edit	Sales	<input type="checkbox"/>	The world's most popular sales force automation (SFA) solution

Force.com:Develop:Eclipse Plugin

- Apex code (like java)
- Corresponding xml metadata
- Metadata types
 - classes, triggers
 - workflow rules, schema obj
 - visual force pages
- 75% code coverage required



Force.com: Extras/Summary

- AJAX and Flex support

Takeaway:

- Fully developed business ecosystem for development and use
- Develop in browser or Eclipse IDE
- No infrastructure worries