

E360's use of git, git-flow, BitBucket, and Deploybot (draft)

We need to tighten up our development process, in order to do so we will be using these tools:

- Git – following the git-flow process – this will provide better branching and merging capabilities than svn. As an added bonus we can use BitBucket (which doesn't support svn hosting)
- BitBucket – tightly integrated with JIRA as they are both made by Atlassian. You can create a branch from a ticket, add the KEY in a commit and it is auto-linked back to the ticket
- Deploybot – This app links to BitBucket and allows us to set up different environments that are mapped to different branches of the git repo

Git and git-flow

We will be using git-flow, first proposed as a blog post here:

<https://nvie.com/posts/a-successful-git-branching-model/>

This is a visualization of the model from the post

The key elements are:

- Master is ALWAYS ready for production
- Release branch is checked on stage before pushing to Master

BitBucket

You can add a branch from a ticket in JIRA

 [Print Issue](#)

Assignee:  Brian Gerrity
Reporter:  Brian Gerrity
Votes:  0
Watchers:  1 [Stop watching this issue](#)
Created: Yesterday
Updated: Yesterday

Development

[Create branch](#)

Agile

[View on Board](#)



Create branch

Repository ^{*}

Branch from

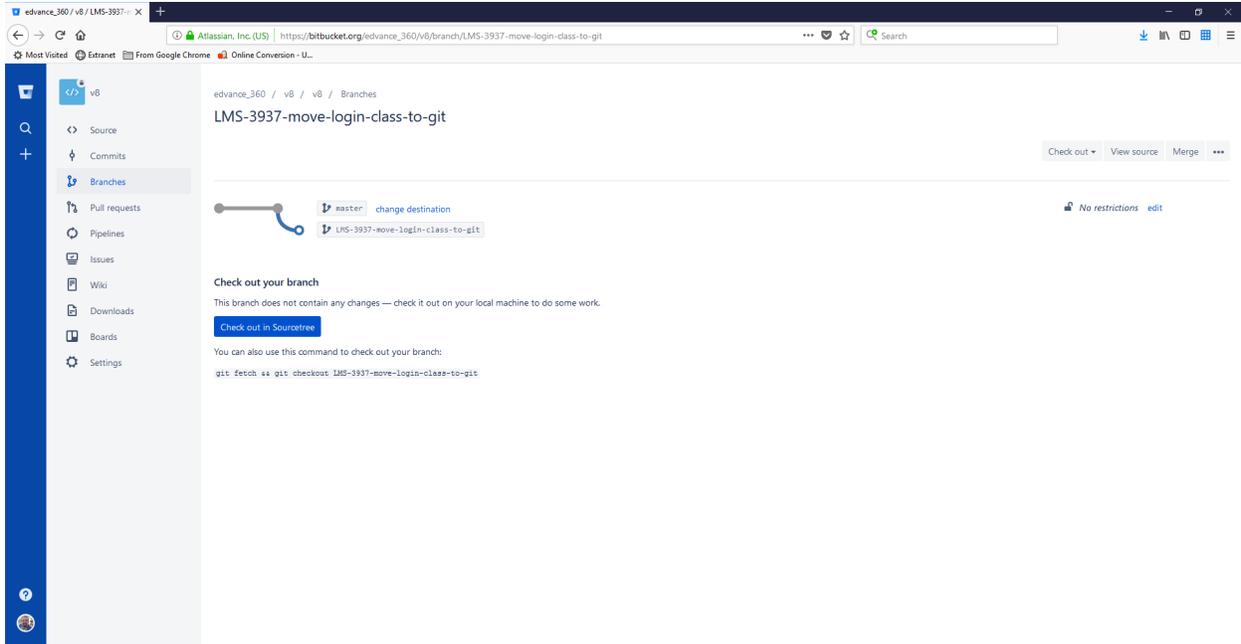
Branch name ^{*}



master

LMS-3937-move-login-class-to-git

[Create branch](#) [Cancel](#)



Use the KEY for the JIRA ticket you are working on in your commit message and it gets automatically linked to the JIRA ticket in 2 places:

- 1) In the list of commits in BitBucket:

The screenshot shows the "COMMITTS" page in BitBucket. A table lists recent commits. The commit by Brian Gerrity with ID fb23d94 and message "LMS-3853" is circled in red. The table has columns for Author, Commit, and Message.

Author	Commit	Message
Matt Contento	ec88019	Merge branch 'master' of https://matt_contento_e360@bitbucket.org/edvance_360/
Matt Contento	de8fc71	Able to submit bulk with empty start end date
Brian Gerrity	fb23d94	LMS-3853
faheem ahmed	b8ca559	Removed the test file
Brian Gerrity	bdb63a7	Merged master into LMS-2333-feature9-scorn-testquestion-dat
faheem ahmed	a4a83f6	Adding php info
Brian Gerrity	16f9ee1	Merge branch 'master' of https://bgerrity@bitbucket.org/edvance_360/v8.git
Brian Gerrity	eca5a26	LMS-3853 updated /home/scholar/v8 to new path: /e360/apps/v8/current
Brian Gerrity	c7b5e39	created development branch
Brian Gerrity	4d7e055	changing release branch
Brian Gerrity	c34668d	README.md edited online with Bitbucket
Paul Sanders	96dd3ae	git-svn-id: http://v8.edvance360.com/svnrepo/trunk@20181 b307126b-c29f-4995-
Matt Contento	cf0cd63	git-svn-id: http://v8.edvance360.com/svnrepo/trunk@20180 b307126b-c29f-4995-
Matt Contento	728106b	git-svn-id: http://v8.edvance360.com/svnrepo/trunk@20179 b307126b-c29f-4995-

2) In the ticket itself in JIRA

The screenshot shows a JIRA ticket interface. At the top right, there are buttons for 'Print Issue', a download icon, and a three-dot menu. On the left, there is a '(View workflow)' link. The main content area lists ticket metadata: Assignee: Brian Gerrity, Reporter: Brian Gerrity, Votes: 0, Watchers: 0 (with a link 'Start watching this issue'), Created: 14/Aug/18 10:43 AM, and Updated: Yesterday. Below this, a red oval highlights the 'Development' section, which shows '2 commits' and 'Latest Yesterday', along with a 'Create branch' link. At the bottom, there is an 'Agile' section with a 'View on Board' link.

Deploybot

Currently we have 3 environments:

- Dev – linked to the development branch, auto deploys on commit
 - Uses v8-dev db on AWS RDS
 - Has the following urls set up:
 - <https://lakestreet-dev.edvance360.com> (Training/Corporate)
 - <https://pondview-dev.edvance360.com> (K-12)
 - <https://emeritus-dev.edvance360.com> (Higher Education)
- Stage – linked to the Release-8.4 branch [currently], auto deploys on commit
 - Uses v8-stage db on AWS RDS
 - Has the following urls set up:
 - <https://lakestreet-stage.edvance360.com> (Training/Corporate)
 - <https://pondview-stage.edvance360.com> (K-12)
 - <https://emeritus-stage.edvance360.com> (Higher Education)
- Production – manual commits from the Master Branch

Process

- Developers work on new features in their own branch, branched from development, this can be done:

- o Directly from git
 - o From the JIRA ticket
- When Development branch is ready for testing, it is merged to Release Branch
- QA/Helpdesk Team tests all new features and general functionality for regression bugs on Stage server
- When Stage/Release is ready we merge with Master
- Any tickets that require a quick fix for current Production are a “Hotfix” and should have their own branch off of Master
 - o Test locally
 - o Merge back to Master
 - o Deploy to Prod for final testing, we can “Rollback” with Deploybot in case of problems