

Jazzee

Open Application Platform

Application for the 2011 Larry L. Sautter Award

Designed, Developed, and Submitted by:

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Implemented and Customized at:

UC San Francisco Graduate Division
UC Berkeley Graduate Division

More information

Website: <http://jazzee.org/>

Source Code: <https://github.com/Jazzee/>

Video introduction: <http://www.ustream.tv/recorded/5562554>

“Jazzee, designed by only one part-time programmer in the UCSF Graduate Division, has provided great flexibility for our on-line graduate application system, and soon that of UC Berkeley. Jazzee puts the graduate program in the driver’s seat to individually tailor their application. A new administrator spends only 30 minutes to become proficient in its use. Jazzee has allowed us to make academic decisions without worrying about the application. As Dean, I do not have to impose any restrictions on what our faculty request from applicants, they know that if it is needed for decisions it is possible with Jazzee.”

-Patricia Calarco, UCSF Graduate Dean

Summary

Jazzee is an open source, multi-campus collaboration. It is designed to provide the structure for campuses, departments, programs, and individual specialties to define completely custom online graduate applications with minimal developer intervention.

History

Jazzee has been in use at UCSF since Summer 2009 and is being deployed at Berkeley in Fall 2011. It is a completely open source project with a BSD license and is now under the guidance of a multi-campus governance organization made up of users, developers, and administrators at UCSF and Berkeley. We are actively seeking to collaborate with other campuses as they seek to upgrade their existing systems or replace expensive vendors.

Description

Using a simple interface individual users can create very rich applications which incorporate campus required and program specific questions into a seamless applicant experience. This allows campuses to deploy custom applications for every type of applicant without needing to engage an army of developers to constantly modify the interface.

Jazzee frees users from the minutia of web design, application security, and database schemas. With a brief introduction and a few clicks of the mouse users are able to create rich online applications which meet the needs of admission committees and registrars alike. Programs spend far more time word smithing the specifics of applicant instructions and debating the merits of GRE scores than they do actually creating an application. This is a very different experience from working with a distracted developer who has no desire to provide 20 iterations of the instructions page for the faculty to review and is concerned with reusing existing templates and not adding significantly to their maintenance load.

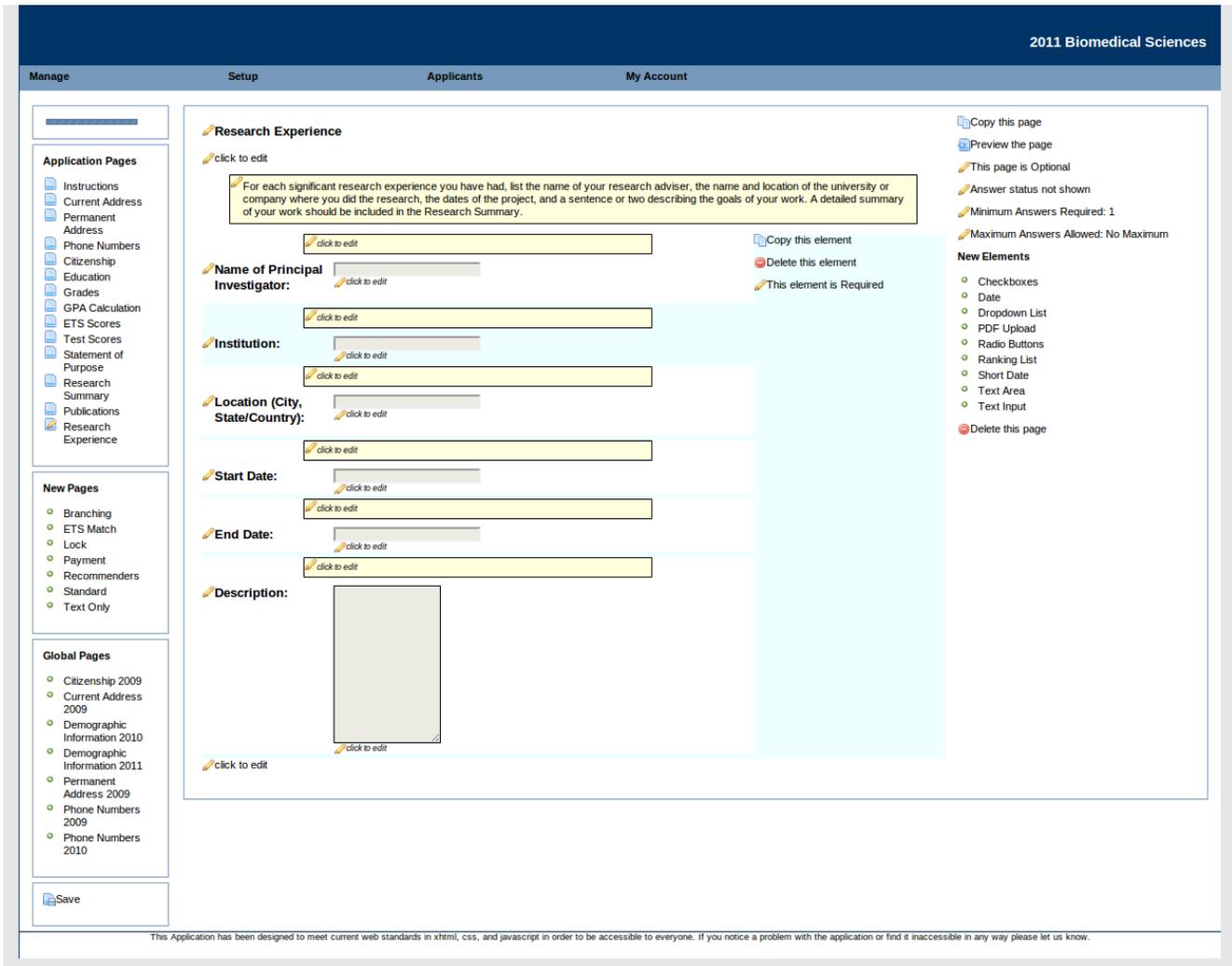
Customizable at it's core

Jazzee is built from the ground up to be extensible without diverging from the main source tree. Each campus can add special page types, unique elements, and custom styles without ever modifying Jazzee. This is a bottom up design decision which will keep the campuses using and developing Jazzee together without needing to understand each others customizations or fork the entire project until it is too divided to be called a community.

For Administrators

The Page Builder

Program administrators build their application in the page builder. It is a web 2.0 style interface where elements can be rearranged by dragging, deleted with the click of a mouse, and created from scratch all without ever knowing what a <form> tag is or understanding why Internet Explorer 6 floats fieldsets incorrectly.



The default Jazzee theme is extremely spartan by design so individual installations can be easily customized to align with campus identity and image requirements.

Applicant Display

One of the biggest challenges to the approach we have taken with Jazzee is the display of applicant data. Because every application is different there is no way

to predict in advance what information will be available for each applicant. This makes it impossible to design a perfect static interface for viewing applications. Instead we automatically detect the type of data and its length and create a dynamic display for each applicant.

Jonathan R Johnson (Edit)(Edit Protected)

Print PDF (Landscape) (Portrait)

Admission Status: Denied (Final) 05/20/11, Denied (Preliminary) 05/20/11

Applicant Information

Email Address	Birthdate	Last Login	Last Update	Status	Fee Paid	Deadline Extension
jon.johnson@ucsf.edu	12/11/1980	05/20/2011 12:03am	05/20/2011 12:43am	Status: 1. <input checked="" type="checkbox"/> Complete 05/20/2011 2. <input type="checkbox"/> Reviewer Group 3 (Unlock Application)	No Payment (Record Payment)	No Extension (Extend Deadline)

Current Address

Street 1	Street 2	Street 3	City	State (US Only)	Country	Postal Code	Verification Status	Attached PDF	Tools
1675 Owens St	Suite 310	Box 0523	San Francisco	California	United States of America	94143-0523			Verify Attach PDF Edit Delete

Add Answer

The summary view for a single application

Admission Status: Denied (Final) 05/20/11, Denied (Preliminary) 05/20/11

The screenshot shows the 'Edit' modal window for the current address. The modal contains the following fields:

- Street 1*: 1675 Owens St
- Street 2: Suite 310
- Street 3: Box 0523
- City*: San Francisco
- State (US Only): California
- Country*: United States of America
- Postal Code*: 94143-0523

A 'Save Changes' button is located at the bottom of the modal. The background shows the summary view with the 'Tools' column containing 'Verify', 'Attach PDF', 'Edit', and 'Delete' options.

Applicant details can be edited with a live ajax overlay

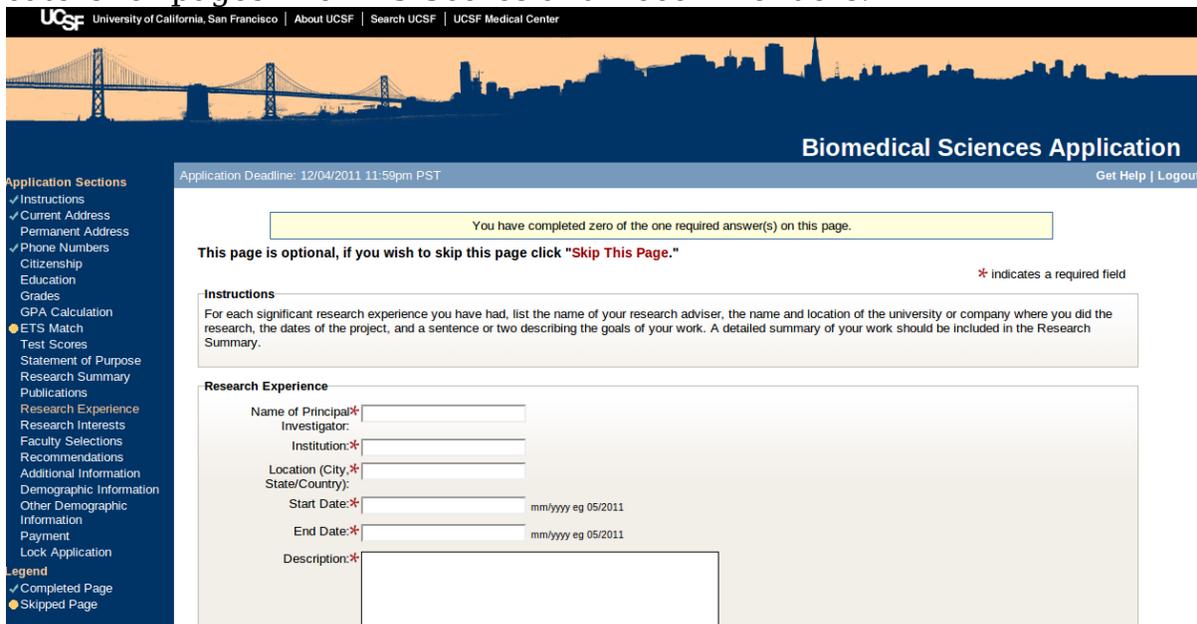
For Applicants

Features

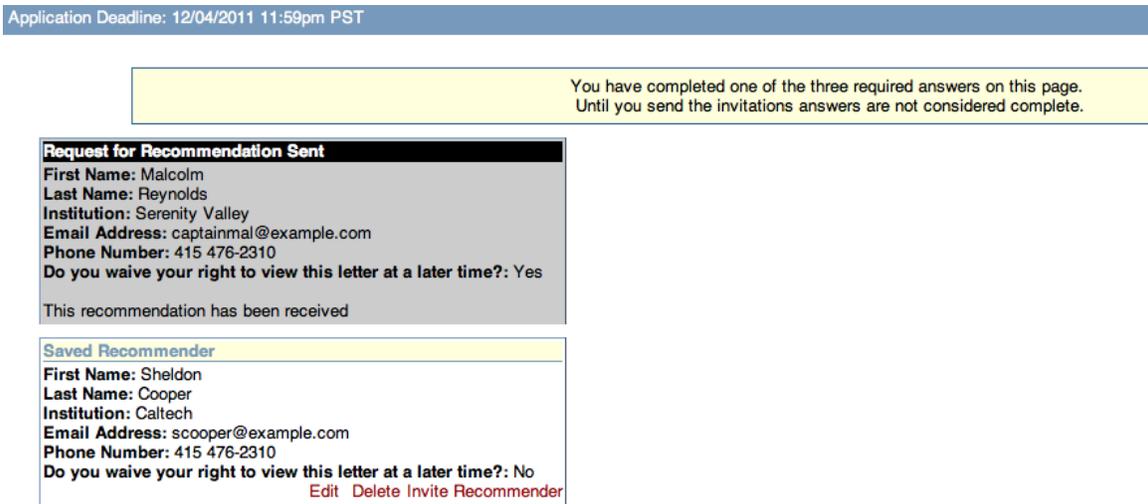
Applicant functionality is the core of a good admission system and Jazzee has all of the expected features. Applicants can pay by credit card, invite their recommender, edit their answers and submit questions to the administrators. The interface works with every major browser on every platform.

The Application

Applicants get a snapshot view their current application status with icons for each page. They can move freely through the application pages and see status indicators for pages like ETS Scores and Recommenders.



The Research experience page which was being edited in the first screen shot as it is presented to the applicant with the UCSF theme applied

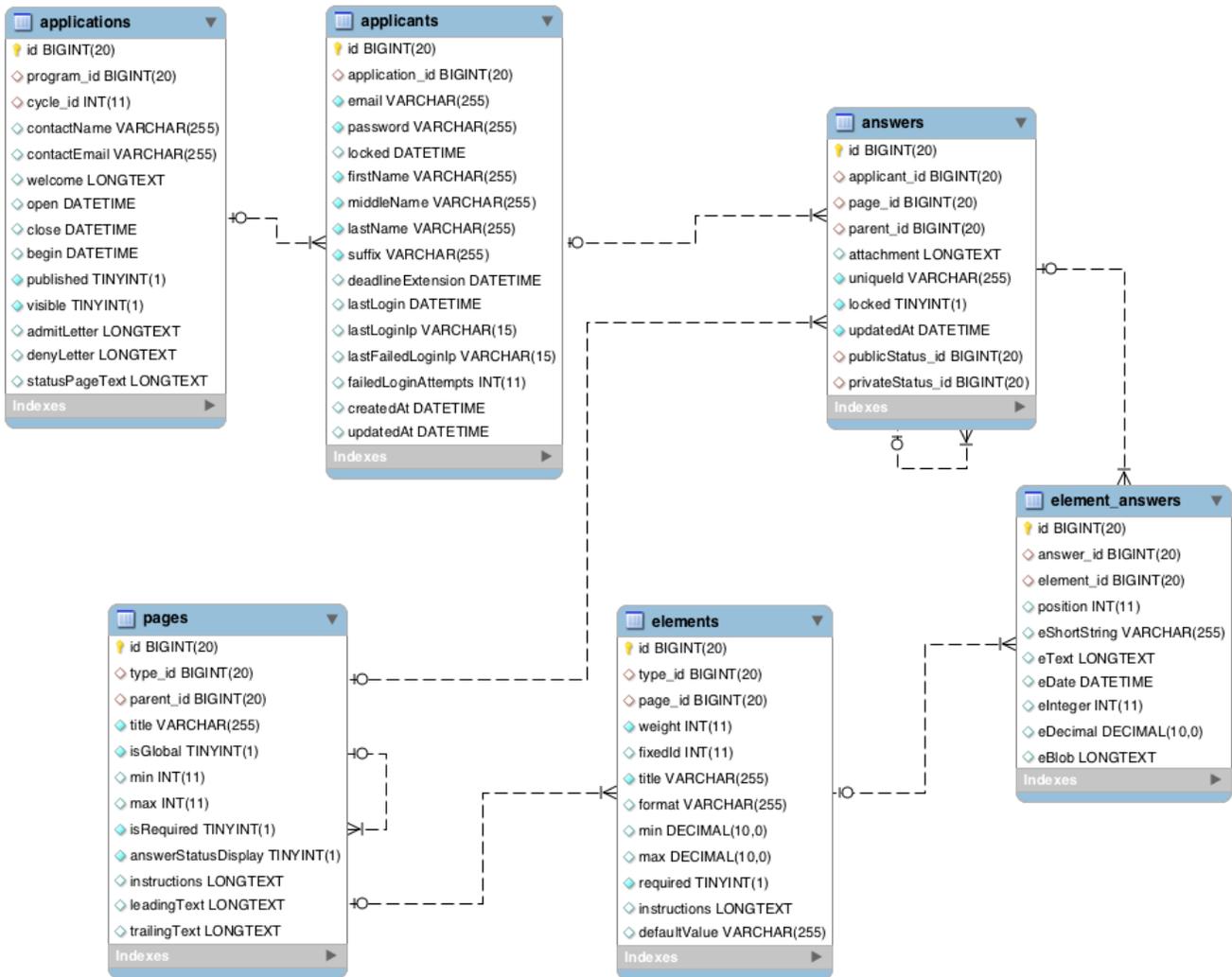


Pages provide live status information for applicants to decrease the number of inquiries programs have to field

For Developers

The core schema

Applications are built of pages and elements which represent individual PHP classes that can be overridden or extended. Applicant answers are stored in two pieces; the answer table holds some metadata and connects the rows in the element_answers table where individual data types get their own columns.



An overview of the core tables that allow Jazzee to be flexible and extensible

Technical details

Jazzee was built to allow maximum flexibility for online admissions using the bare minimum of developer resources. As online application systems have evolved campuses have traditionally taken two roads. They either standardized the entire application, allowing individual departments and programs very little

flexibility, or they dedicated ever increasing resources to continually writing custom code for every special application case. At UCSF standardization was not an acceptable solution and by the 2008 admissions cycle we had defined more than 100 custom page types and had only provided service for half of our programs. Something had to change if we wanted to provide online admissions to the remaining programs; allowing faculty to drive the application and selection process with the criteria they found most useful. The solution was to abstract the pieces of the application experiences into pages and elements and to build an interface which allows non-technical users to create and modify these objects. Other implementations of this idea exist, however they generally require the on-demand creation of database tables for every new page. This eventually leads to an exploding database schema and other maintenance nightmares. The entire Jazzee database schema is less than 30 tables with clear functionality and long term viability. While the end user never needs to know about the database for their favorite web app Jazzee maintainers can be comforted that they will never need to reserve a conference room wall to map out what their database looks like.

Jazzee is a PHP/MySQL web application and has been tested running on apache in OSX, Windows, RHEL and Ubuntu Linux. We take being open very seriously and provide an XML API for accessing applicant records so programs can make use of existing review systems and business processes. Jazzee has consistently passed load test and security auditing and plans are in place to make these a part of our development process so we can insure a fast and safe application experience for every user.

The Future

This Fall Jazzee 2.0 will be available which is built on top of the Doctrine ORM to be database agnostic to make it even easier to implement on any campus. If it becomes practical Jazzee is ready to become a cloud based software service in 2012. We are looking for anyone with a passion for developing a multi-campus system to participate as a developer, tester, or project manager, just drop us a line: contact@jazzee.org.