



Product White Paper: Web Application

**Planning, Creating, Managing Online
Applications for Foundation Cloud
Community Portal**

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Overview

Foundation Cloud Community Portal can deliver robust Online Applications for different types of grant seekers, and Foundation Cloud Grants provides the mechanisms for creating and publishing these Online Applications and tracking incoming submissions. This document discusses how to create and publish online applications, including how-to guides and best practices.

Covered topics include:

- Understanding Online Apps in Foundation Cloud Grants and Foundation Cloud Portal
- Planning your online applications
- Creating new online applications from scratch
- Using online applications for multiple grant cycles (copying vs. reusing)
- Field Mapping (for prepopulating questions with default answers)
- Scholarship Fund Criteria configuration for matching by applicants
- Application Scoring configuration
- Testing web applications
- Publishing online applications
- Managing online applications and incoming submissions
- Troubleshooting

Key Terms:

The following terms are used throughout this document:

- Online Application – the general term for the web application itself, including its pages and fields
- Application Form – the pages of HTML fields filled out by the applicant in Foundation Cloud Portal
- Submitted Application – an incoming application submission from an applicant
- Proposal Application – an Online Application which is intended for organizations or individuals to apply for grants. Submitted Proposal Applications get processed to become Proposal records in Foundation Cloud Grants.
- Scholarship Application – an Online Application which is intended for students to apply for scholarship grants. Submitted Scholarship Applications get processed to become Scholarship Application records in Foundation Cloud Grants.
- Applicant – the individual who submits an application, or the organization on whose behalf an application is submitted



Different Types of Online Applications

Foundation Cloud Grants allows users to create lots of different kinds of online applications. Picking the best type of app will help ensure a successful implementation of an application throughout its life cycle (from publishing, processing, scoring, awarding, granting, and reopening for follow-up reporting).

Proposal vs. Scholarship

A Proposal Application is intended for competitive grants. Its applicants are most often charitable organizations, and they can also be individuals (for hardship grants, disaster relief, etc.).

A Scholarship Application is intended for scholarship grants (academic, athletic, need-based, etc.). Its applicants are students. Online Scholarship Applications can be configured to perform Scholarship Fund matching. After a student fills out the first portion of the Application Form, they are presented with a list of Scholarship Funds which match their Form values. Students can select funds and apply to them. If scholarship fund matching is enabled for an Online Application, each scholarship fund can be configured with an additional “Addendum” page which include application questions that are specific to the fund.

Multistage vs. Single Stage

A Multistage Application has the Application Form split into two sections. The Preliminary pages represent an initial round of questions. After submission, Foundation Cloud Grants users review the Submitted Applications and determine whether to Promote the application and invite the applicant to return and fill out a second round of questions (in the Main pages of the Application Form). This is useful if a foundation expects a lot of interest in an Online Application and wants to narrow the list of application finalists before requesting more information.

A Single Stage application is a simple Online Application which consists of one or more pages of questions in the Main pages of the Application Form. It does not include any Preliminary pages. Once an applicant submits an application, they are not presented with a second round of Application Form questions.



Cyclical vs. Open-Ended

A Cyclical Application has a specific start and end date configured in Foundation Cloud Grants (or for a Multistage Application, it has specific start and end dates configured for the Preliminary and Main stages). Online Applications are read-only in Foundation Cloud Portal before the configured start date and after the configured end date. This is useful for enforcing application deadlines.

An Open-Ended Online Application is always available for applicants to apply. These are useful for a foundation's ongoing grant programs.

Online Apps with Supplemental Pages

After a Submitted Application is approved and a grant award is paid, foundations sometimes ask the recipients to return after some time has passed to supply a report of how the grant money was spent. Scholarship Recipients are sometimes asked to submit transcripts after a fall semester before receiving a spring disbursement. These needs can be met with Supplemental Pages in an Application Form. Supplemental pages are made available to applicants via Workflow processing in Foundation Cloud Grants.



Page Types

There are many different types of pages which can be used in an Application Form.

- **Preliminary** – the first round of questions in a Multistage Application
- **Standard** – the main pages in an Application Form (or the second round of questions in a Multistage Application)
- **Addendum** – a page of questions which are specific to a Scholarship Fund. These are only used in Scholarship Fund Matching, and only one Addendum page per fund is allowed.
- **Reference** – Online Applications can include up to three (3) References. Applicants are usually prompted for the name, relationship or title, and email address of an individual to serve as a reference. A Reference person is sent a secure email asking them to return and fill out a Reference page in the Application Form. This individual is not required to have a login to Foundation Cloud Portal.
- **Supplemental** – a post-award follow-up page for grant recipients to return and submit additional information. These pages are made available to recipients in Foundation Cloud Portal via Workflow in Foundation Cloud Grants.
- **Review-Only** – a page in an Application Form which is not shown to the Applicant, but instead is made available for Reviewers in Foundation Cloud Portal. This is useful for asking reviewers questions which are not tied to specific answers submitted by applicants.



Using Foundation Cloud Grants and Portal Together for Online Applications

Foundation Cloud Grants and Foundation Cloud Portal are used together for creating online apps, publishing them, and accepting submissions online. These two systems share a Grants database in NPact's cloud environment, and each of these systems provides different functions for online apps.

Foundation Cloud Grants	Foundation Cloud Portal
Creating and Configuring Online Apps	Submitting Online Applications
Adding/Editing App Pages and Fields	Corresponding with Applicants
Processing Incoming Submissions	Corresponding with App References
Corresponding with Applicants	Submitting follow-up Application pages
Automated Scoring of submitted apps	Manual Scoring of submitted apps
Scholarship Fund Criteria Configuration	Scholarship Fund Matching by Applicant



New Online Application – Reuse, Copy, or Start from Scratch?

If a foundation already has Online Applications from prior years, a Grants Administrator has to decide whether to reuse an existing application, copy it as a starting point for a new application, or build a brand new application. Each of these options has advantages and disadvantages.

- **Reusing an Online Application** – this option involves no changes at all to the Application Form. A Grants Administrator simply brings the application online again. This is only a good option for applications which **don't** change from year to year, and if they're not scored cyclically. Note that reopening a closed application will allow applicants from prior years to return to their incomplete applications and submit them. If the fields in a web application from a prior year are (removing or changing an existing field on the Application Form), applications submitted in prior years will not display properly in Foundation Cloud Portal, and previous Applicants returning to Foundation Cloud Portal may see error messages when loading their submitted Application Forms.
- **Copying an Online Application** – this option involves making a copy of an existing application, and choosing for whether to reuse, copy or omit each page. This is a good option for applications which will change from the previous year, and for applications which are cyclical. When making the page-by-page decisions to reuse/copy/omit the page, choose to Reuse pages whose fields won't change, and choose to Copy pages which will need to change.
- **Starting an Online Application from scratch** – this option involves more work, but the risks of affecting existing applications are removed. This is also a good option when planning for future reusable Application Form pages.



Planning A New Online Application

NPact strongly recommends spending a lot of time planning a New Online Application. Time spent planning will be well spent – it paves the way for a smooth development path.

HTML is not a good medium for planning. Successfully planning often starts in Microsoft Word, building out pages of application fields. If paper or PDF applications are being put online, take the opportunity to rethink how the questions are presented to applicants. NPact recommends taking the following steps in order:

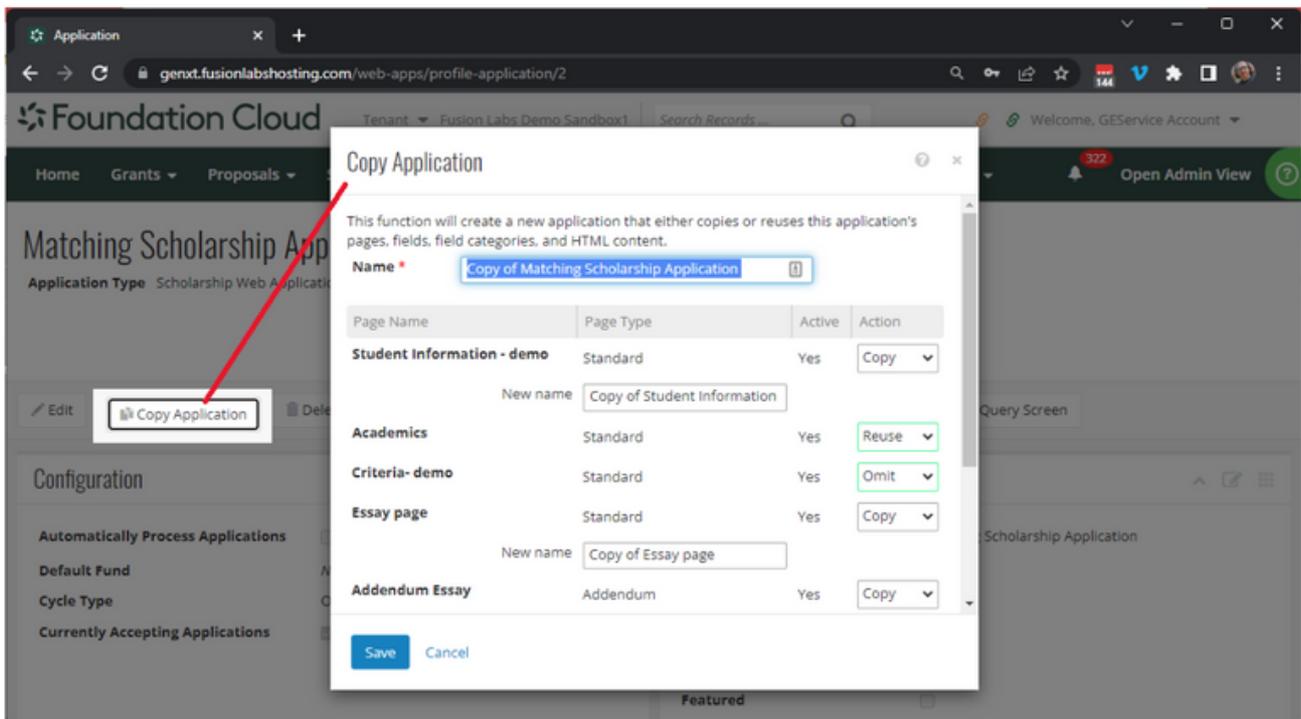
- 1.** Decide whether the application will be Multistage or Single Stage.
- 2.** Decide how many pages of questions should be presented to the applicants.
- 3.** Create a new Word document with separate pages for each page of questions in the Application Form. If Multistage, decide which pages will be Preliminary and which will be Main.
- 4.** Once the Preliminary and Main pages are laid out in Word, add the application fields. For each field, decide the following:
 - a. Determine if the field will be required or optional
 - b. Determine if the field will be conditional (and note which other field it depends on)
 - c. For essay questions, decide if the applicant will be prompted with a long text field (with a word or character limit), or if they will be prompted for a file attachment (PDF, DOCX, etc.).
 - d. Decide what the data type will be. Foundation Cloud Grants users can choose from these values: Single Line Text, Multi-line Text, Number, Date, Yes/No, List, File Attachment, URL, or Hidden.
 - e. Decide which fields will be scored (if any). Application scoring can be manual (by Reviewers in Foundation Cloud Portal) or automatic (processed in Foundation Cloud Grants). For each field on each page, note the ones which will be used by these scoring processes.
- 5.** For a Scholarship Application, decide whether to use Fund Matching.
 - If applicants should be presented with multiple Scholarship Funds from which to choose, use Fund Matching.
 - If the foundation staff will decide which funds to assign to Submitted Applications (either manually or through Foundation Cloud Grants fund matching), do not use Fund Matching
 - If the application is intended for a single Scholarship Fund, do not use Fund Matching. The Online Application will be configured in Foundation Cloud Grants to use a specific fund.
- 6.** In addition to the Preliminary and Main pages of the Application Form, design any additional pages for the Application Form at this time.
 - Design any required Supplemental Pages. Even though they won't be online for many months, designing and building them now will avoid disruptions in the application cycle later.
 - For Scholarship Fund Matching, design any needed Fund Addendum pages
 - Design any needed Reference pages for coaches, counselors, clergy, etc.
 - If reviewers will be presented with questions in a separate page, design a Review Only page.



Creating and Configuring a New Application

Regardless of whether the new Web App will be created from scratch or will be copied from an existing Web App, the next step is creating the new Web App record in Foundation Cloud Grants.

- To create a new Online Application, click the “New Application” button in the Online Applications page, and choose the application type.
- To copy an existing Online Application, open it in Foundation Cloud Grants and click the “Copy Application” button. Decide for each page whether to Reuse, Copy, or Omit the page in the new application. See the screenshot below.



Once the new Online Application is created, it needs to be configured.



Creating and Configuring a New Application Cont.

Configuration

The *Configuration* tile on an Online Application record includes the following settings:

- **Automatically Process Applications** – when checked, this means that when an application is submitted it will automatically be processed to become a Proposal or a Scholarship Application record in Foundation Cloud Grants.
- **Default Fund** (optional) – this is the Fund or the Scholarship Fund which will be automatically assigned to an application when it is submitted. If using Scholarship Fund Matching, leave this empty.
- **Cycle Type** (Open Ended or Cyclical)
- **Currently Accepting Applications** – only shown for Open Ended applications. Determines whether applicants can create, edit, and submit applications in Foundation Cloud Portal. This should initially be set to False, then turned on when the application cycle begins.
- **Submit Status** (Submitted or Committed) – only shown for Cyclical applications. When an applicant submits an application in Foundation Cloud Portal, its status gets set to Submitted by default, which means that the applications are no longer editable by applicants. To allow applicants to return and modify applications until the deadline, this can be set to Committed.
- **Start and End (Date & Time)** – only shown for Cyclical applications. This is where the opening day and the deadline are configured. For Single Stage applications, the Stage 1 values are set. For Multistage applications, both Stage 1 and Stage 2 are set.

Web Settings

The *Web Settings* tile on an Online Application record includes the following settings:

- **Application Title** – the name of the Online Application as it will be presented in the Applicant Portal in Foundation Cloud Portal
- **Password** – left blank by default. For a “By-Invitation-Only” application, this can be set to a password which can be sent to applicants.
- **Listed Online** – indicates whether the application is visible to applicants, regardless of whether the application is Currently Accepting Applications. This should be left False while the application is being built.
- **Allow Multiple Applications** – If checked, an applicant can submit more than one application. To limit the submissions to one application per applicant, set this to False.
- **Featured** – this indicates that the Online Application is to be highlighted and prioritized for the applicants in the portal. If checked, the Online Application will be listed in the landing page tile, and it will be at the top of the list of available Online Applications.
- **Submit Email CC (optional)** – When an application is submitted online, the applicant receives a confirmation email from Foundation Cloud Portal. If the Grants Administrator wishes to send a copy of that confirmation email sent to the foundation, the foundation user’s email address can be entered here.



Building an Application Form

Once the application has been created and configured, and its pages have been created, the next step is creating and configuring the application questions (fields) on each page of the Application Form.

Before creating fields, it is a good idea to make sure that any questions whose answers will be chosen from a list have a Characteristic created before proceeding. For example, if a scholarship applicant will be prompted to choose their ethnicity from a predefined list, make sure that Foundation Cloud Grants has an Ethnicity characteristic defined with the appropriate codes.

Foundation Cloud Grants has an HTML editor with special integrated functions for creating web applications for Foundation Cloud Portal. In the Web App record's Pages tile, use the ellipsis menu to edit the Layout of the page. This opens the HTML editor below.

The screenshot shows the 'Matching Scholarship Application' editor. At the top, there are two dropdown menus: 'Select a Page/Tab' set to 'Academics' and 'Select a Version' set to 'Current Version'. Below these are four buttons: 'Save Content', 'Reload Page', 'Backup Page', and 'Validate Page'. A central instruction reads: 'Use the Field List icons (e.g. [icon]) to drag fields or labels (👉) onto the application. Double-click an item in the Editor to edit.' The main editor area features a rich text toolbar with options for Source, Undo, Redo, Bold, Italic, Underline, Strikethrough, Text Color, Background Color, Bulleted List, Numbered List, Indent, Outdent, Link, Unlink, and Help. Below the toolbar, the form layout is visible with the following fields: 'High School' (text input), 'Graduation Date' (text input), 'Intended Major' (text input), 'Weighted GPA' (text input), 'Unweighted GPA' (text input), and 'College Choice' (dropdown menu). On the right side, a 'Field List' panel contains icons for 'College', 'High School', 'Recommendation', 'Graduation Date', 'Intended Major', 'GPA', and 'Unweighted GPA'.

Application Form Page Layout Editor



Building an Application Form Cont.

Configuring Application Form Fields

The Field List (on the right side of the above screenshot) should contain all the questions for the page. If you're starting from scratch, the list will be empty. You can add new fields in this list by either creating a new one or choosing from a set of predefined template fields. Referring to the design document you created in Microsoft Word, edit each field in the Field List and configure it. The Field Editor screen has many settings to consider (and the integrated Help content can provide guidance on what each of these Field settings mean):

- Details – the Prompt, Data Type, Format, Default Value, Sort Order, etc. are defined here
- Options – fields can be Optional/Required, Review Only, Read-Only, etc.
- Conditions – if the field should only be visible if another field is answered in a certain way, those conditions are defined here.
- Validation – if a field's acceptable values are limited, conditions can be added here. For example, a GPA field can be configured with a minimum of 2.0 and a maximum of 5.0.
- Calculations – fields can be configured to automatically calculate their value from other fields. For example, a Total Project Cost field could be configured to be read-only and be calculated by summing the Project Materials, Personnel, and Other Costs fields. Calculated fields are automatically recalculated in the Portal as the other fields are edited.
- Scoring – If the field will be used in Scoring (either manually by Reviewers or automatically by Foundation Cloud Grants), the scoring type and other options are configured here.
- Processing – Advanced field mapping is configured on this tab. Fields can be prefilled with values specific to the applicant (name, address, etc.), they can be configured to be mapped to a Proposal or Scholarship Application record during processing, and they can be mapped to Scholarship Fund Criteria fields for Scholarship Fund Matching.

Generating and Editing the Application Form Layout

Once all the fields for a page in an Application Form have been created, configured, and sorted, the initial Layout of the Application Form can be created by clicking the "Regenerate Form" button in the HTML editor.

Note that this will erase any HTML which is already in place and replace it with the newly generated HTML layout. The editor will allow you to move fields around, add instruction text where needed, set text font and colors, etc.

The five buttons in the toolbar image shown above were developed specifically for working with Application Forms. These buttons allow users to Insert Fields, Validate the Form, Regenerate the Form, Copy the Page, and Set the Field Order.



Building an Application Form Cont.

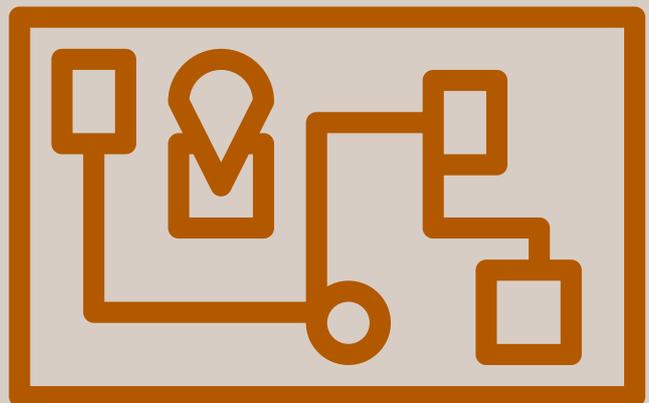
Field Mapping

Application Form fields can be prefilled with values to make the application process more efficient. These values can come from Defaults or from Mapped Fields.

- The “Details” tab on the Field Editor allows a default value to be defined. For example, a “County of Impact” field could be configured to default to “HARRIS” for a Houston, TX area project.
- The “Processing” tab allows a system-defined “Web Mapped Field” to be used to prefill the field. For example, selecting the “WebUserOrgAddressBlock” would default the field to the address block of the organization on whose behalf the applicant is applying.

As submitted web applications are processed to become Proposal or Scholarship Application records in Foundation Cloud Grants, Application Form fields can be mapped to certain predefined fields in the new records using the Foundation Cloud Grants Mapped Field setting on the Field Editor’s “Processing” tab. For example:

- Selecting “Proposal.ShortDescription” will cause the new Proposal record to get a Short Description value from this Application Form field
- Selecting “Scholarship.RequestAmount” will cause the new Scholarship Application record to get a Requested Amount value from this Application Form field



Scholarship Fund Configuration

Online Scholarship Applications can provide applicants the opportunity to apply to specific scholarship funds whose criteria matches the fields they've filled out in the application. For example, if the applicant answers the application form questions to say they are studying Mechanical Engineering, their GPA is 3.82, and their Ethnicity is Native American, the applicant will see a "Match" button on the final application page, and this function will list only the Scholarship Funds for which these answers have qualified them.

Criteria

This Fund Matching functionality requires configuring each Scholarship Fund with criteria for applicants to qualify. To configure criteria for a particular fund, open a Scholarship Fund record in Foundation Cloud Grants configure the qualifications on the Criteria tile. Criteria rows can be grouped with parentheses and And/Or operators for complex configuration needs. For example:

```
(College = 'Yale University' Or  
College = 'Duke University') And  
StudyArea = 'Business'
```

Note that a Scholarship Fund without any configured criteria will be matched for all applicants.

Academic Years

Foundations have the option to manage scholarship funds on a yearly basis, with annual budgets and awards tracked by year. The number of scholarships to award, total amount to award for the year, and minimum and maximum scholarship amounts can be managed annually. This provides lots of flexibility and power for planning and tracking funds.

Foundations also have the option to use a simpler approach, creating a single DFLT (default) academic year, and managing all awards together. Annual tracking isn't as robust with this option, but it greatly simplifies fund configuration.

Scholarship Fund availability and award tracking can be enabled or disabled on a year-to-year basis. For example, if a scholarship fundholder decides to not fund their scholarship for a year, the Scholarship Fund record can be configured with "Display Online" set to false for that year (or for the DFLT year if not tracking annually).



Final Steps and Going Live

Now that the Web Application has been configured, the Application Form has been composed, and the Scholarship Funds have been configured, the web application is almost ready for the web. These are the final steps to take to get the Web Application online in the Foundation Cloud Community Portal.

Messages, Descriptions & Instructions

The *Messages, Descriptions & Instructions* tile on an Online Application record is where various HTML messages shown to applicants in the portal should be configured. These items include the following:

- **Application Description** – this is included in the portal's list of available applications
- **Application Instructions** – this is shown at the top of the application, visible to applicants as the Application Form is being filled out.
- **Preliminary Page Submitted Message** – this is shown to the applicant when they submit the Preliminary stage of the application. It's only relevant to Multistage applications.
- **Main Page Submitted Message** – this is shown to the applicant when they submit the Main stage of the application.
- **Supplemental Page (1-10) Submitted Message** – this is shown to the applicant when they submit a Supplemental page for the application.
- **Review Instructions** – these are only shown to online reviewers in the Foundation Cloud Community Portal. Applicants will not see this message.

Testing Online Applications

Once the application form pages are all created, the application can be tested in Foundation Cloud Community Portal without publishing the applications for applicants to see. This is done by logging into the Foundation Cloud Community Portal as an "Application Admin" and selecting "Test Applications" from the menu.

- **Test Mode** shows what the applicant will initially see. It allows administrators to Submit applications, which can be promoted in Foundation Cloud Grants from PRELIM to MAIN, and then the portal administrator can return to see what the second phase of the application looks like.
- **Preview Mode** shows all available pages, including supplemental pages, scholarship addendums, references, etc. This mode is just for testing, and the applications cannot be submitted.

Both options allow you to test conditional fields, calculated fields, etc.



Final Steps and Going Live Cont.

Publishing

Publishing an application makes it visible online for applicants. The Online Apps screen in Foundation Cloud Grants lists all Online Apps and their Availability status.

- “**Now**” means the application is live, and applicants can apply.
- “**Not at this time**” means the application is not live. Applicants who have already created and saved or submitted applications can see them, but they are read-only and cannot be submitted.

The mechanism for going “live” with an application is different per application depending on its Cycle Type.

- Open Ended applications are available if the “Currently Accepting Applications” checkbox is checked
- Cyclical applications are available between the dates defined in the Start and End dates defined for the stage(s). Foundation Cloud Community Portal will make applications Available or Unavailable based on these date settings.



Incoming Submissions

The Online Apps screen in Foundation Cloud Grants lists all Online Apps and their Counts (which represent the number of applications created per Online App). The count value is a link which takes users to the appropriate Submitted Web Applications page to see the submissions. This page shows the application date created, date submitted, applicant name, and other fields from the application record. Users can open an application and click the “View Application” button, which shows the Application Form and the values submitted by the applicant.

To see all of an Online Application’s submitted applications with the questions and answers from the application, the Online Application record has an “Add to Query Screen” button, which will dynamically build a database view for the Online Application. Users can then create a new Query in Foundation Cloud Grants, choose Web Application as the query type, and then select the Online Application and the fields from the submissions they wish to see. Foundation Cloud Grants Queries can be exported to CSV files, and they can be used in Correspondence templates (for acceptance and decline letters or emails).



Troubleshooting

Application doesn't appear online for applicants

If an application should be live but isn't available in the Foundation Cloud Community Portal for applicants to choose, check the following settings on the web application:

- "Available Online" (for Open Ended applications)
- Start and End Dates (for Cyclical applications)
- Listed Online (this should only be turned off for "By Invitation Only" applications)

Conditional Fields are not appearing when expected

Each field flagged as "conditional" has another "condition" field to which it is linked, and a condition which must be met. For example, if an applicant says "Yes" to a field called "Cancer Survivor", the application can be configured to prompt them for a type of cancer. In this example, the "CancerType" text field should be configured with a conditional field set to "CancerSurvivor", Condition should be "=", and Value should be "Yes". (This means that when the answer to the Cancer Survivor question is "Yes", the Cancer Type field should be made visible).

Scholarship Funds are not matching when applicant criteria is met

Scholarship Fund Criteria configuration is case-sensitive. If the Scholarship Fund is configured for "GPA > 3.5", but the Application Form field has a field called "Weighted GPA", these are not the same.

Foundation Cloud Grants has a built in Scholarship Fund Criteria Testing tool, found under Settings, System, System Diagnostics. This can be useful for troubleshooting matching issues.

Portal shows "An error occurred while loading ..."

Applicants may see an error like this when opening an application:

"An error occurred while loading saved or default values. There is no data value for field ProfileDetail_tb_1084_92. Try closing and re-opening the application."

This indicates that the HTML for the application does not match the defined fields in the web app page configuration. This happens when the HTML layout for an Application Form page is created, and then one of the fields gets changed or removed afterwards, so the HTML and the Field definitions are not in sync. To resolve this, open the layout editor for the page which is reporting the problem, and use the built in validation functions to make the layout match the field definition.





Additional Resources

To open a new support case with NPact, please enter the relevant information on our support portal: <https://support.npact.com/s/>