

# ERP for GIS User Documentation

## Introduction

This is the User Documentation for ERP for GIS. The application is developed to collect and visualize the data provided by various institutes about their course availability. As of now, the application is still under development, and as such is not feature complete. However, most of the application's core functionality has been achieved.



*Home Page Of Application*

The work-flow of the application is as follows :

## Registration

The registration feature of the application redirects a user to the Brihaspati Registration site. Since the application runs using Brihaspati OpenId authentication, this redirection has been done. Once this registration has been done, users can easily login to the site.

## Login

Logging in is similarly tied in with the Brihaspati site using OpenId. A click on Login takes you to the Brihaspati Open Id site, where you can log in with your credentials that you used to register.

Once this login is done, the Brihaspati sites asks you to allow the "Application" access to your credentials. Once this is done, the Brihaspati OpenId system should redirect you back to our main site.

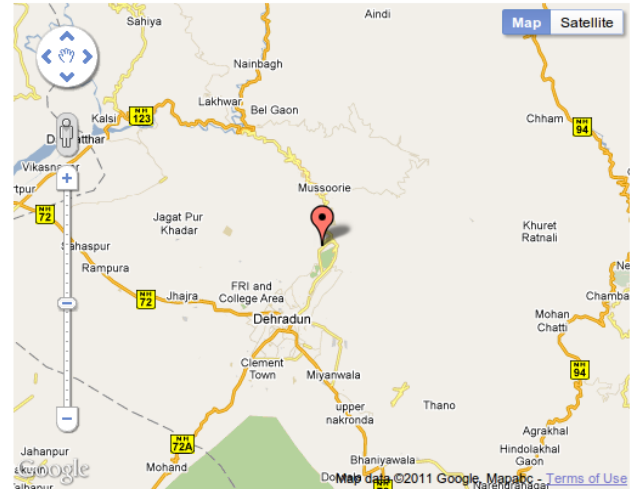
## Data Collection

Data collection is done in two steps : Registration of the Institute, and course addition within the institute itself.

### Institute Registration

Institute Name	<input type="text" value="Dehradun Institute Of Tec"/>	<input type="button" value="Find"/>
Latitude	<input type="text" value="30.39871549999999"/>	
Longitude	<input type="text" value="78.07627200000002"/>	
Address	<input type="text" value="Mussoorie Rd Dehradun"/>	
State	<input type="text" value="Uttarakhand"/>	
Phone	<input type="text"/>	
Year Of Establishment	<input type="text"/>	
Home Page	<input type="text" value="Institute's website"/>	
<input type="button" value="Clear"/>	<input type="button" value="Register"/>	

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*Institute Registration Screen*

To register an institute, click on Institute Registration (visible after logging in). The Institute Registration consists of various fields. You can

- Type the institute name and click on Find to locate it on the map
- Move around the tracker on the map to update its location
- Type the correct co-ordinates if you know them

Please note that institute Website address must contain a “http://”

### Course Registration

After creating an institute, the user is taken to an institute choosing screen, which offers one all the institutes that one can edit. These would include institutes you have created yourself, or additional institutes (in case you have privileges).

Once you click on an institute to edit, you are taken to the Institute Editing Screen. Here you can easily add/remove courses from your institute. You can specify the following fields :

- Course Degree (B.Tech/M.Tech etc)
- Course Discipline (Computer Science, Chemical Engineering etc)
- No. Of Seats

As of now, this is the bare minimum information and will likely grow over time. You can specify a new course by typing it on the “Other:” text box.

**Pantnagar University**

Degree	Discipline	Seats
B.Tech	Computer Science & Engineering	33
B.Tech	Chemical Engineering	32

Add a new Course

Degree Name B.Tech

Discipline Computer Science & Engineering

Other:

Seats 30

Clear Add Course

*Course Addition Screen*

## Data Visualization

This is the most important part of the application and the part where most of the development is happening. The data that is collected in the earlier steps is visualized in this part. There are various means of visualization :

- Maps
- Tables
- Bubble Plots

As of now, only Maps are supported, but work is ongoing on the others visualizations as well. To generate a map plot of all the institutes, click on “All Institutes (Map)” below. The map holds all the institutes as points, with the color of the dot denoting the size of the institute.

The map is clustered so that if multiple institutes are present in the same region, they can be differentiated at a lower scale, and give us a clear view at a higher scale (zoomed-out).

Data Visualization will also have a Query model, which allows us to query the database about specific institutes only. For instance you can generate queries about “institutes in Tamil Nadu with more than 50 seats in Computer Science”. The Query system is also under development as of the moment.

## Query Builder

Show Me	<div>Institutes Branches Available Courses</div>	In states:	<div>All States Delhi Noida Uttarakhand</div>	Sort By :	<div>Population Literacy Rate Number Of Institutes Number Of Courses</div>	in a	<div>Map</div>
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## Ready-visualizations

1. [All institutes on a map](#)
2. [All institutes on a bubble-chart](#)
3. Institutes Older than  years. [Go](#)

Show me institutes:

- older than  years.
- inside state

*Query Builder & Visualization Screen*