

Graveyard Management System (GMS)

By: JANG Tech.

Our Team:

- **Josh Heeren**
 - Skilled in project development, with a proven track record in creating innovative solutions. Prior experience includes the development of various web applications utilizing a diverse tech stack, including C#, Python, React, HTML, CSS, Javascript, and AWS.
- **Ashton Hoeft**
 - Proficient in adding features to new and existing applications. Knowledgeable in database creation and management. Bringing prior experience with SQL, C#, and Python from previous classes and work experience.
- **Noah Huesman**
 - Managing project by facilitating communication with the client to ensure all goals are met successfully. Also bringing prior experience with HTML, CSS, JavaScript, & Python from personal projects and work experience.
- **Gavin Kestner**
 - Experience in developing and designing applications that adhere to guidelines and expectations. Prior experience doing so with C#, Python, Java, HTML, CSS, and Javascript from work and courses taken.

Scope & Overview:

The Graveyard Management System (GMS) project is dedicated to creating a refined web application for Rosemound Cemetery, located in Barnesville, Minnesota, and overseen by St. James UCC. The GMS emphasizes a user-friendly interface, an interactive map of plots, administrative tools, robust search functionality, and privacy measures. One notable limitation involves the reliance on manual data input and maintenance by authorized users, introducing the potential for human error and requiring consistent effort in data upkeep. However, the GMS project also aims to mitigate this limitation by implementing features that streamline the data entry processes. Ultimately, the goal of the GMS is to help solve the problem of manual cemetery information upkeep by providing a streamlined and efficient digital solution for managing and displaying Rosemound Cemetery's vast amount of information.

Goals:

I. Graveyard Directory:

- A. Centralized database to store information about individuals buried in the graveyard. This information will be provided by authorized users of the site.
- B. Information will be maintained by authorized users of the web application.

II. Interactive Graveyard Plot Map:

- A. Develop an interactive map displaying the layout of the graveyard.
- B. Interactable burial plots, allowing users to click on specific locations for more details about the individual buried there.
- C. Highly accurate map of Rosemound Cemetery in accordance with official documents provided by the Sexton.

III. Search and Filter Functionality:

- A. Incorporate a search mechanism for swift retrieval of specific plots and or individuals buried at the cemetery.
- B. Filters are based on various criteria such as names, relevant dates, and location.

IV. User Authentication and Roles:

- A. Define roles such as administrator, Sexton, and generic users with varying levels of access to data and functionality.
- B. User-specific pages allowing varying levels of access to data manipulation. These separate pages would show and allow different features than that of the generic pages.

V. Donations Page:

- A. A separate page connected to the GMS where users can donate to Rosemound Cemetery.

User Requirements:

- **Sexton:**
 - Add new burial records, including any relevant details/information relating to the deceased.
 - Update existing burial records with accurate and current information.
 - Mark plots as occupied, available, or reserved.
- **Administrators:**
 - Manage user roles and permissions to control access to sensitive information.
 - Maintain and implement requested features.
- **Generic Users:**
 - Search for burial records based on the deceased person's name, date of burial, or plot location.
 - Interact with a map of the cemetery and view plot details.

Our Story:

While assisting the Sexton of Rosemound Cemetery with his personal computer over winter break, the idea of a web application to help manage and share the vast amount of data pertaining to the graveyard was brought to Noah's attention. After much discussion, it was decided that Noah would determine the feasibility of building this application for college credit. Following the first couple of weeks of the spring semester, the idea was made possible by the introduction of a group project for one of the team's classes: CSCI313. Quickly realizing that a trusted team would be a necessity, the group consisting of Josh Heeren, Ashton Hoeft, Noah Huesman, and Gavin Kestner (JANG Tech.) was formed to build and deploy the GMS. Then going back to the Sexton, many more aspects of the project were fleshed out, and a meeting date was set for gaining the approval from the Board of Trustees at St. James United Church of Christ. After a successful meeting, this project proposal was drafted up and sent out for further approval.