Twelvi: System Correctness and Test-Driven Development

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ICS 414: Software Engineering II

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Twelvi: Overall System Functionality

The intent of the system we have prepared is to generate and download an .ics file following the definitions provided in the RFCs for “event files.” The technical requirements we chose to fulfill are: Version, Classification, Geographic Position, Location, Priority, Summary, DTSTART, DTEND, Time zone identifier, RSVP, Sent-by, and Resources, along with a handful of other recurring event validations.

Method

Our system was tested in sections, we first tested the components that all events would share. Such as, the Event Title, Location, Description, Organizer, Attendee(s), Resources, Classification and Calendar Type. The second set of components tested were each individual recurrence. Such as, the None, Daily, Weekly, Monthly and Yearly recurrences.

After breaking up components needed to be tested, our group created a running list of different situations that could occur while an individual is using the system. This list included blank inputs and incorrect input formats. Throughout this testing, other types of errors occurred, and we added them to the list. We found that referencing different calendar applications could aid in creating rules and testing strategies for our system.

Once all error checking and validation methods were put into place, and we found the system to be fully functional, we used a random input method of testing. For example, we would input random but correct information into the system (title, location, dates, emails, resources) and test to see if we encountered any errors. Through this testing method, we found errors that had not initially occurred.

Results

Overall, we conclude that our event planner is useful. In comparison to other methods of creating events, such as Outlook, Gmail and iCalendar, our system presents a user-friendly way to create an event that includes resources, as well as a complex recurrence selection.