

Natural Language to iCalendar Converter

COMP SCI 4TB3 PROJECT – GROUP 9

Natural Language to iCalendar Converter

Generates a standard iCalendar format event from a natural language input.

Create new calendar events without filling separate fields as in a traditional calendar application.

COMP SCI 4TB3 PROJECT DEMO

Type your event information to view a real-time conversion, or try one of the samples.

Project presentation from 4/16 at 10:30am to 4/16 at 10:40am. Prep slides

- Summary: Project presentation
- Date Start: Friday, April 16, 2021 10:30:00 AM
- Date End: Friday, April 16, 2021 10:40:00 AM
- Description: Prep slides

☒ Press Enter or click Download to generate an iCalendar file for your event.

[Download .ics](#)

[Preview .ics](#)

The iCalendar Format

*Internet Calendaring and Scheduling Core
Object Specification (.ics)*

A standard for storing and exchanging calendar event data.

Supported by and can be imported into almost any calendar application.

"Discuss project on
monday at
4pm. Bring notes"

- SUMMARY: Discuss project
- DATE/TIME: Mon Apr 19 2021 4 PM
- DESCRIPTION: Bring notes

```
BEGIN:VCALENDAR
PRODID:Calendar
VERSION:2.0
BEGIN:VEVENT
UID:0@default
CLASS:PUBLIC
DTSTAMP;VALUE=DATE-TIME:20210413T042828
DTSTART;VALUE=DATE-TIME:20210419T160000
DTEND;VALUE=DATE-TIME:20210419T170000
SUMMARY;LANGUAGE=en-us:Discuss project
DESCRIPTION:Bring notes
TRANSP:TRANSPARENT
END:VEVENT
END:VCALENDAR
```

Implementation

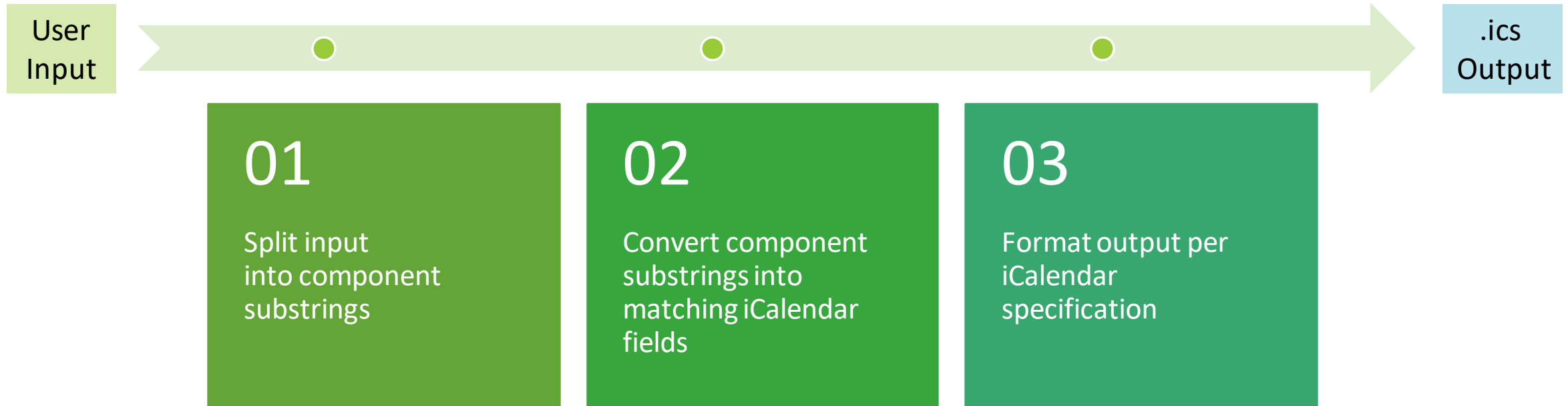
Because there are infinitely many ways to provide event and date information through natural language, we have decided to limit the input string to the format:

(Event summary) on (Date) [time]. [Description]

TODO

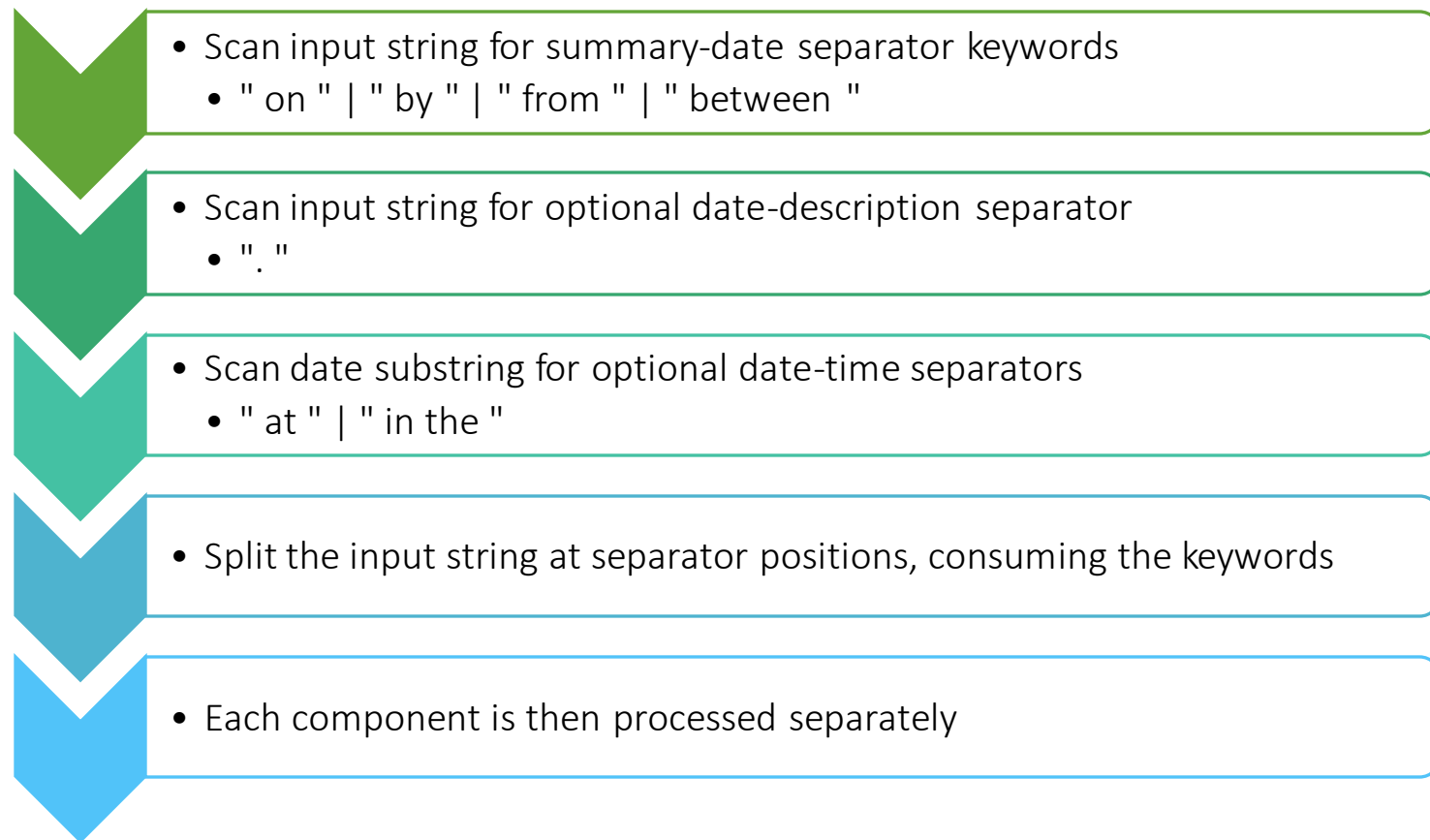


The Conversion Process



01

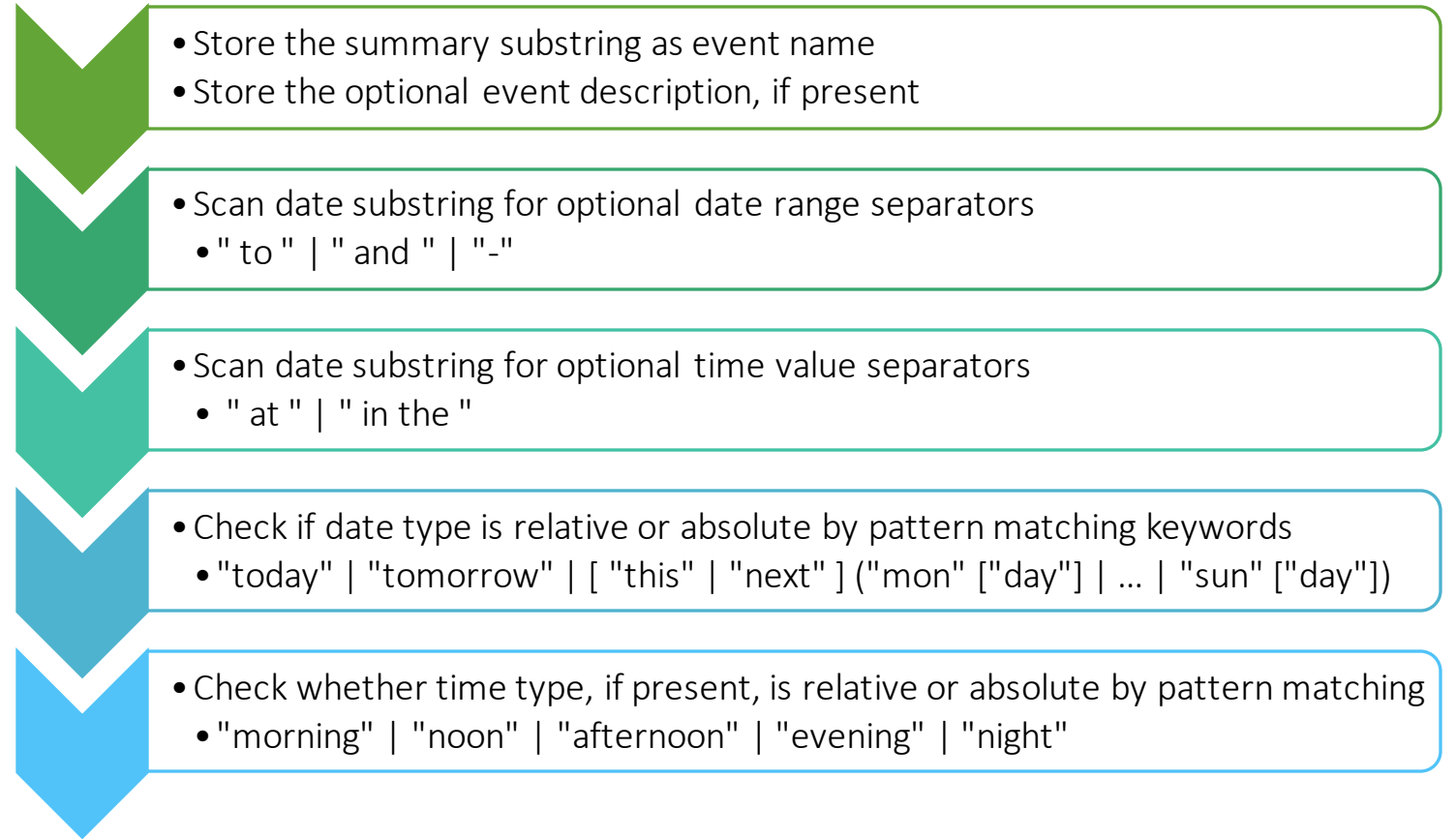
Split input into component substrings



"Discuss project on monday at 4pm. Bring notes"

02

Convert component substrings into matching iCalendar fields

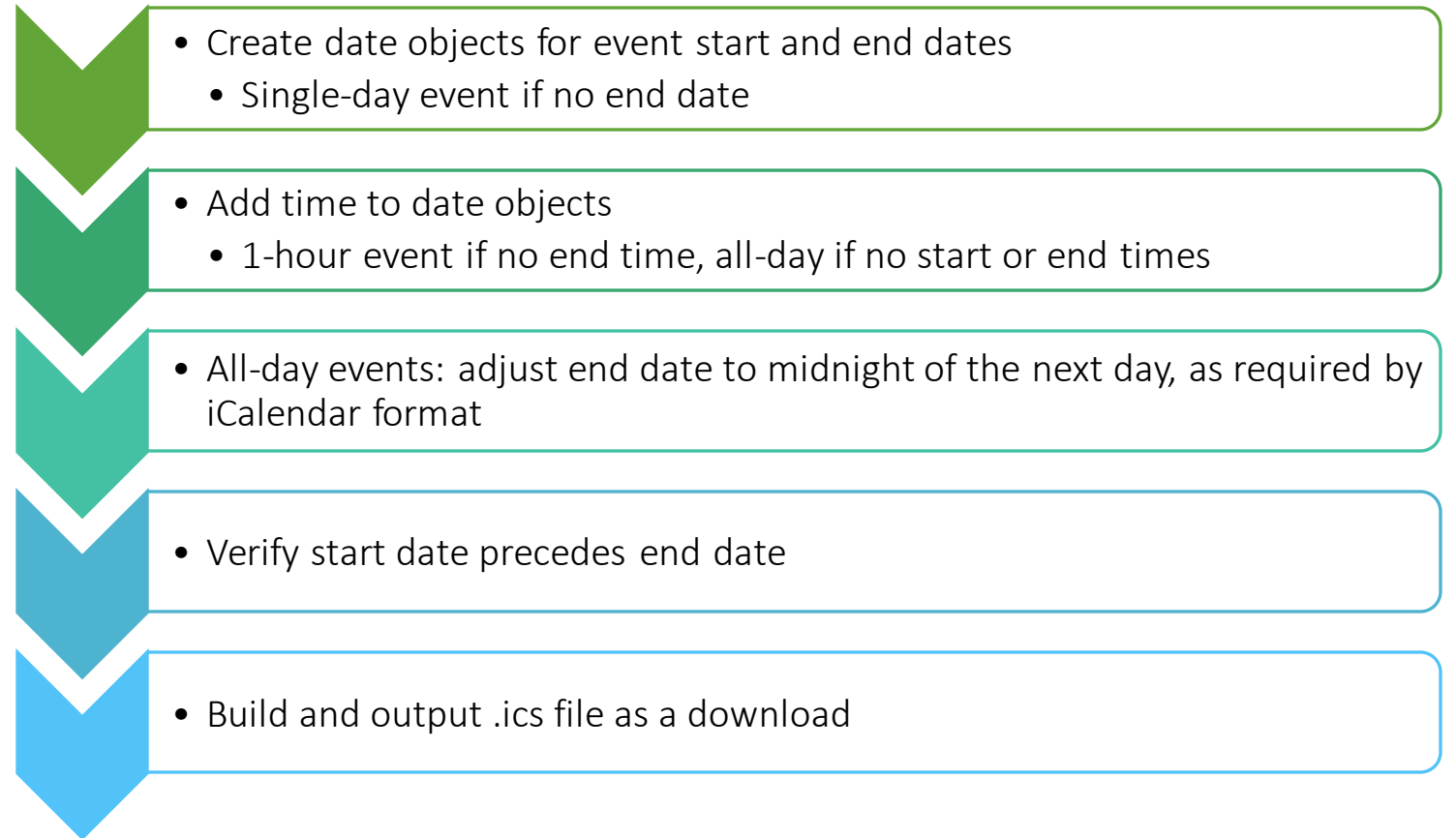


"Discuss project monday 4pm Bring notes"

string relative date absolute time string

03

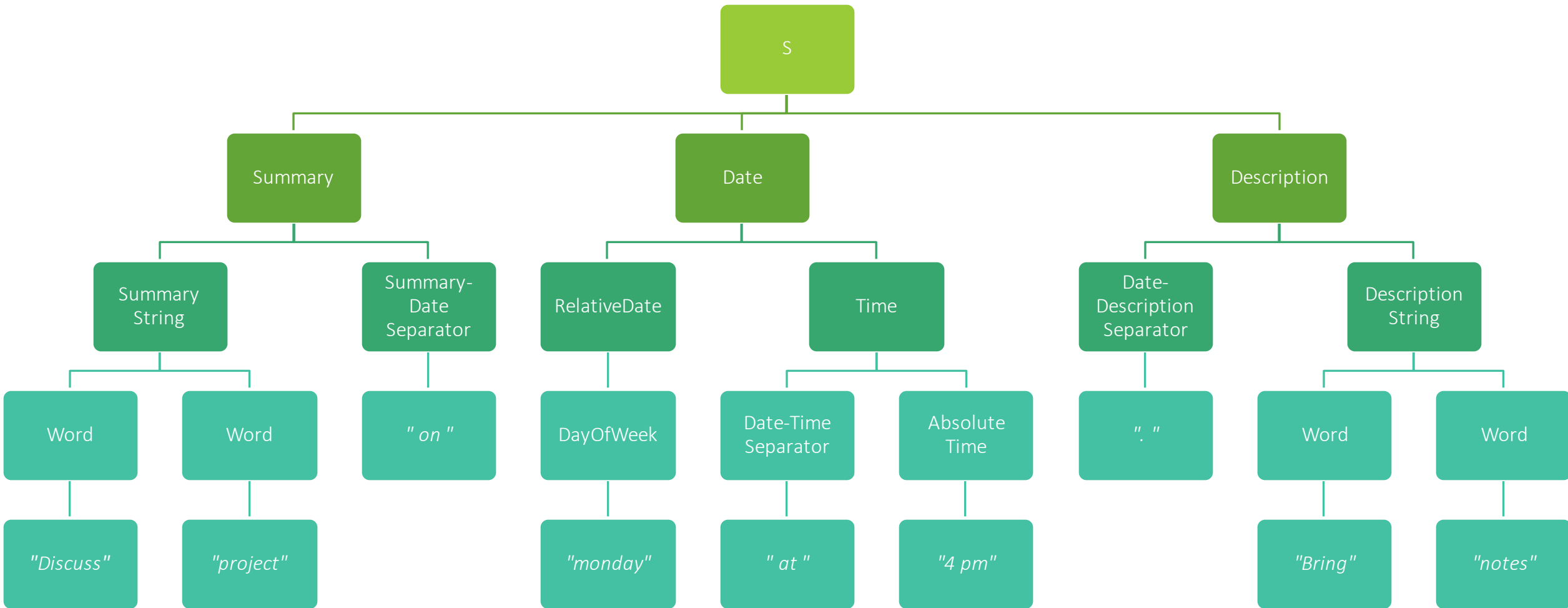
Format output per iCalendar specification



"Discuss project **monday** **4pm** Bring notes"

DTSTART;VALUE=DATE-TIME:20210419T160000

"Discuss project on monday at 4pm. Bring notes"



Implementation



WRITTEN IN JAVASCRIPT



RUNS CLIENT-SIDE IN ANY
WEB BROWSER



SIMPLE TO INTEGRATE INTO
NEW AND EXISTING WEBSITES



A combination of manual and automated tests were performed.



Ensures that for any acceptable input, the converter outputs a valid iCalendar file.



With an unacceptable input, an error is returned...



TODO

Testing

Natural Language to iCalendar Converter



DEMONSTRATION

Natural Language to iCalendar Converter



ANY QUESTIONS?