

# Natural Language to iCalendar Converter

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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.

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

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*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

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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:

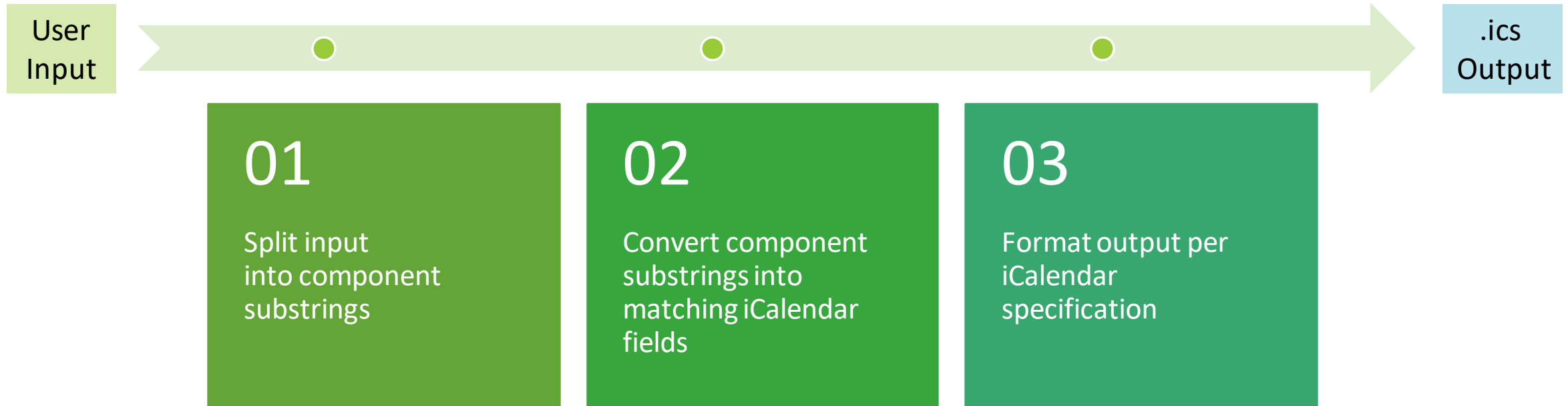
(Event summary) on (Date) [time]. [Description]

TODO



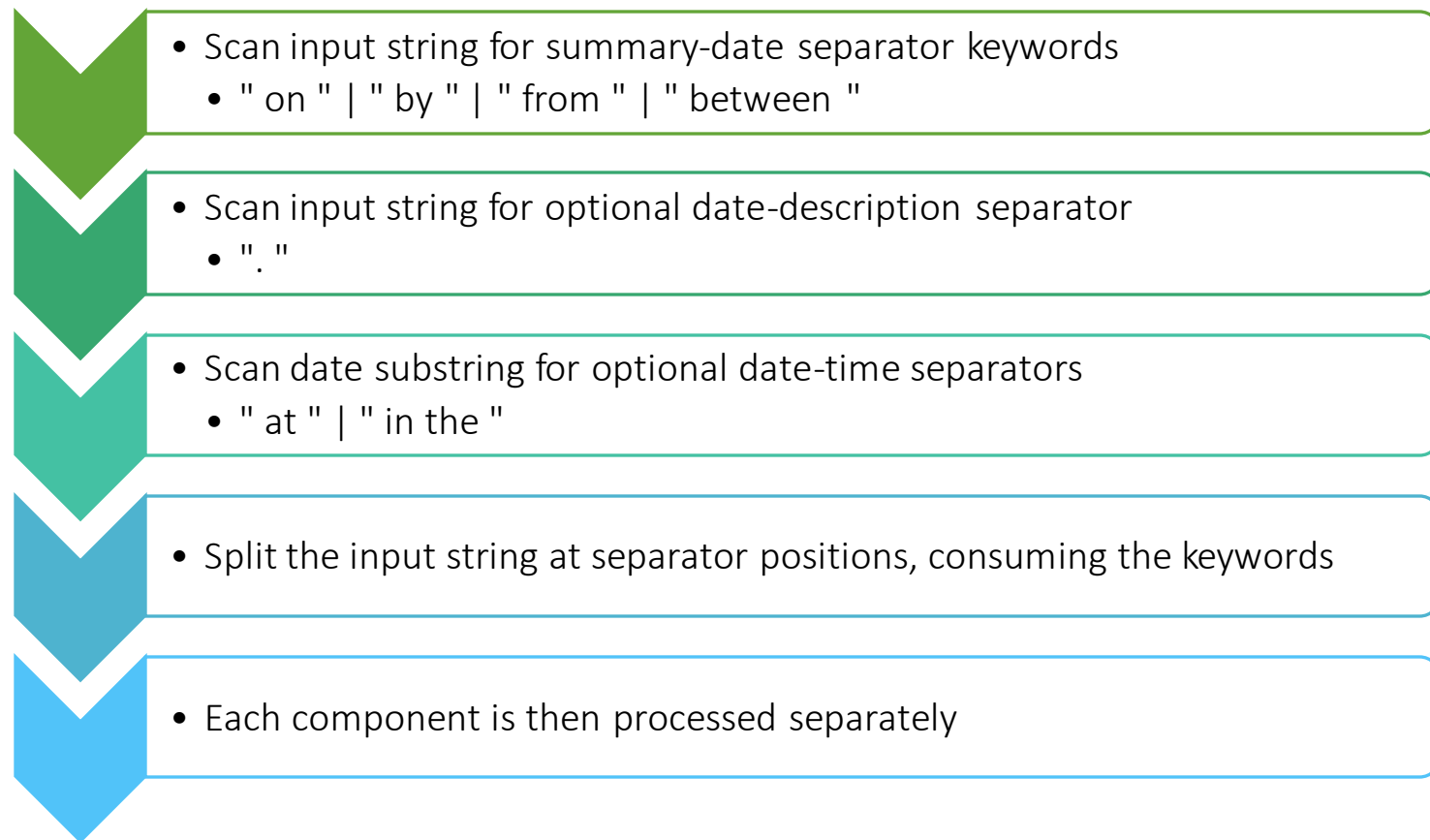
# The Conversion Process

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# 01

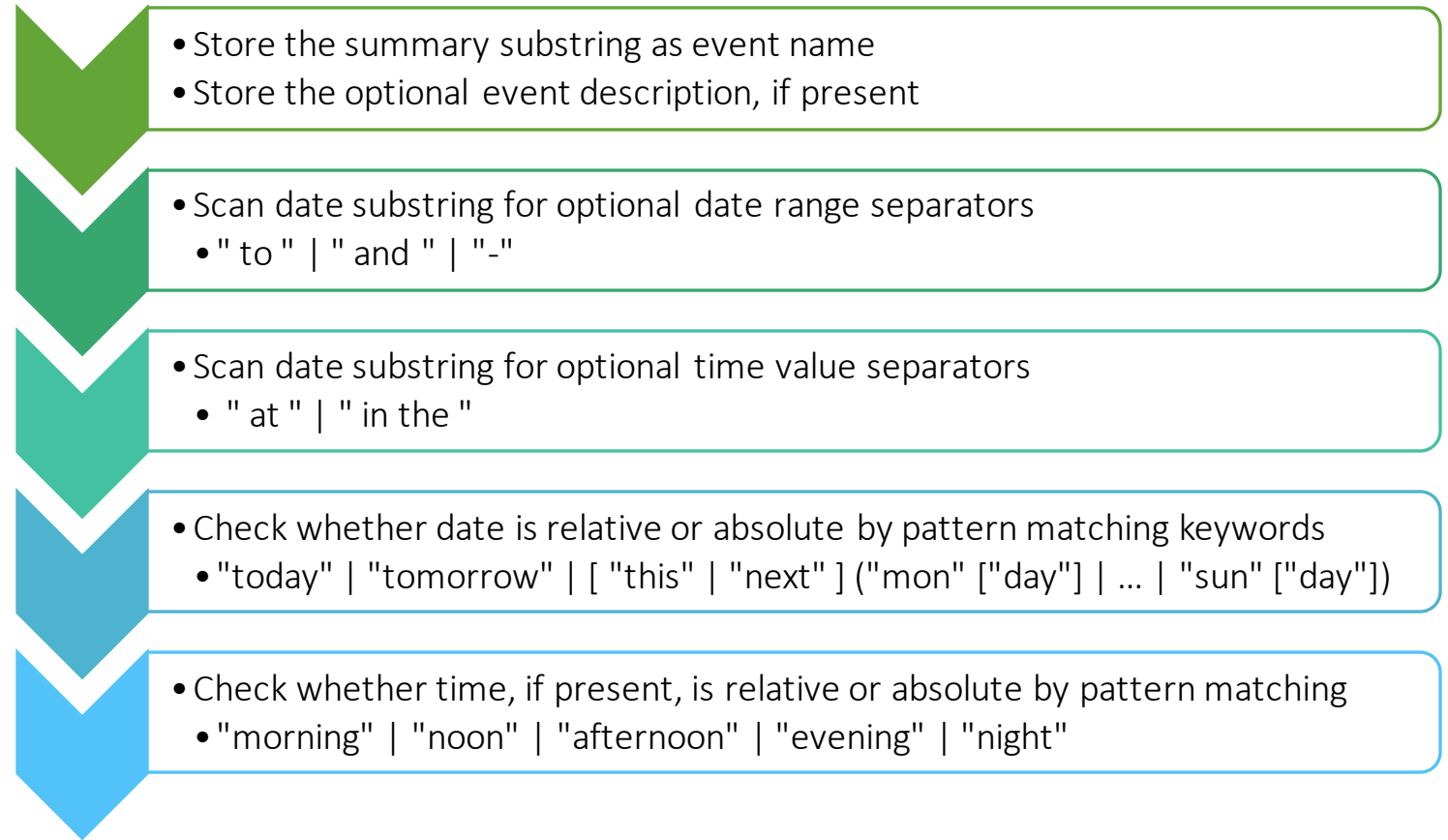
## Split input into component substrings



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

# 02

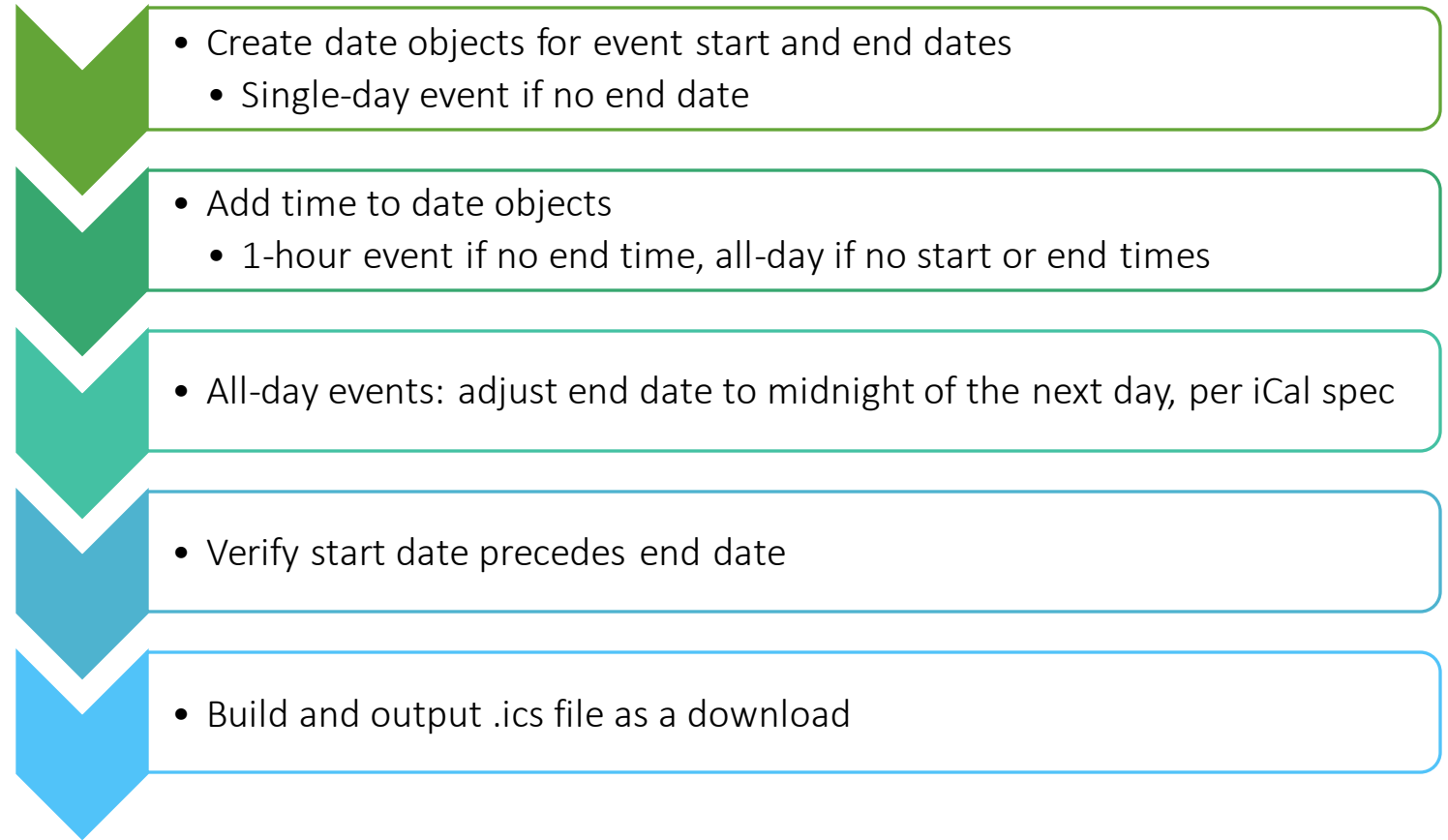
## Convert component substrings into matching iCalendar fields



"Discuss project monday 4pm Bring notes"  
string relative date absolute time string

# 03

## Format output per iCalendar specification

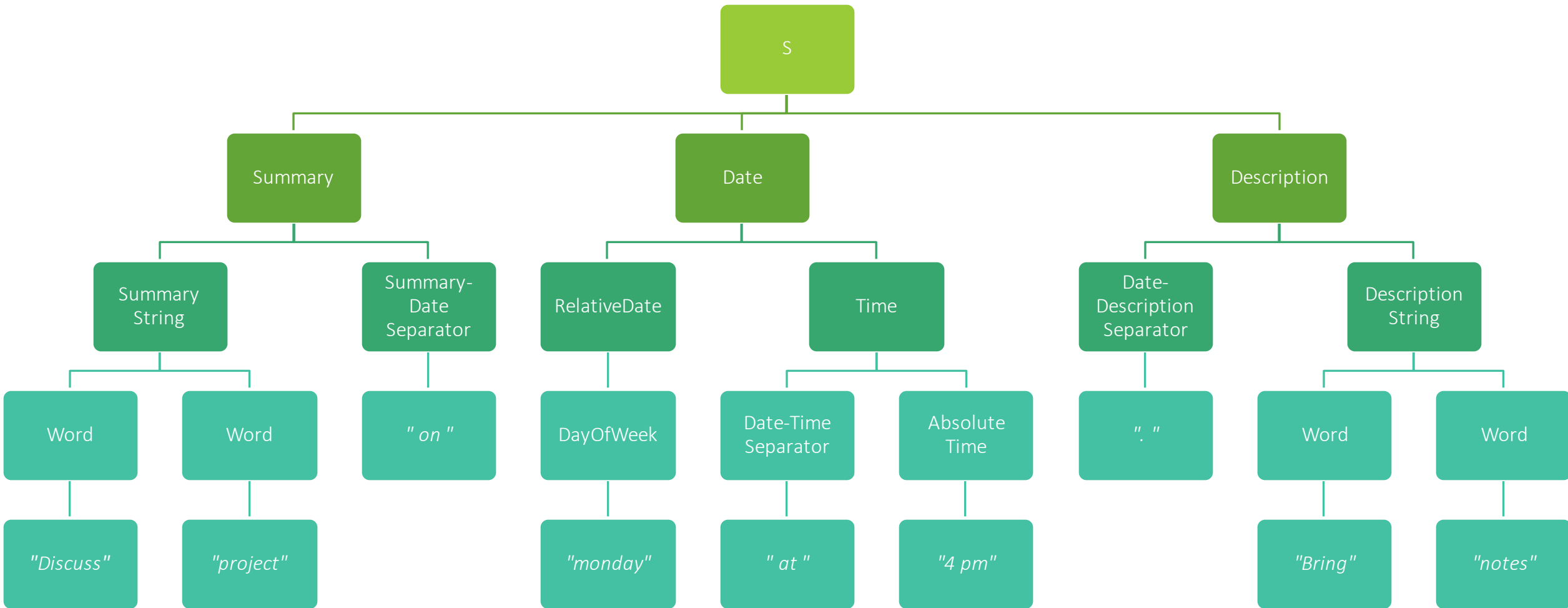


"Discuss project **monday** **4pm** Bring notes"

DTSTART;VALUE=DATE-TIME:20210419T160000



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



# Implementation

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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

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DEMONSTRATION

# Natural Language to iCalendar Converter

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ANY QUESTIONS?