First Committee Meeting

Progress Report

Jason Balaci

McMaster University

Oct. 21st, 2021

Table of Contents

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Who am I?

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Me, Camping in Killarney Prov. Park, Fall 2019

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  - Hons. Actuarial and Financial Mathematics (B.Sc.)
  - Minor in Computer Science
- Currently pursuing a thesis-based Master's of Computer Science (M.Sc) at *McMaster University*, under the supervision of **Dr. Jacques Carette**.

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Overview of Progression Towards C.S. M.Sc.

Course-related progression

- I'm required to complete[1][2]:

[1] https://academiccalendars.romcmaster.ca/preview_program.php?catoid=45&poid=23470&returnto=9166

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- Together, the courses completed satisfies the "Courses Requirement" as mentioned in the academic calendar[1] and the "Regulations for the Computer Science M.Sc. Program" document[2].

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- Supervisory committee is formed, and we are currently having our first supervisory committee meeting.
  - *Supervisor*: Dr. Jacques Carette
  - Dr. Spencer Smith
  - Dr. Wolfram Kahl

Table of Contents

Drasil...

Drasil's Logo
[Carette et al., 2021][Yggdrasil - Wikipedia, 2021]

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Preface

What is Drasil?

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Drasil

"Generate All The Things!"

- TODO: here!

Drasil Case Studies

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- *cont.d*[1]:
  - **SWHS without Phase Change Material (NoPCM)** - Modelling of a solar water heating system without phase change material, predicting temperatures and change in heat energy of water and the PCM over time.

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The Drasil website is also generated by Drasil!

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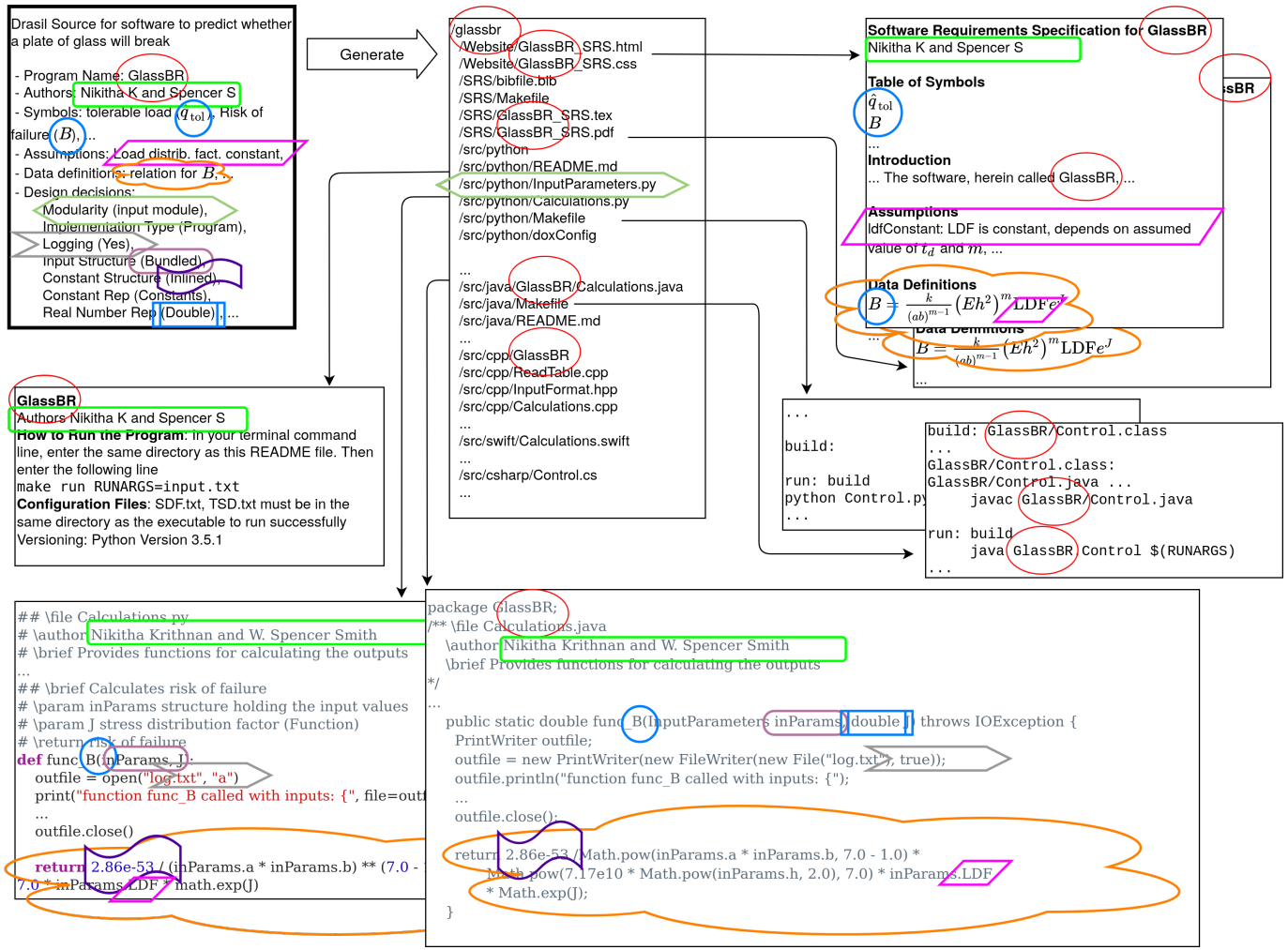
Taking a closer look at one of the examples: GlassBR

GlassBR Generates Code!



Knowledge flow from "knowledge-base"/source to artifacts, by Dr. Spencer Smith

Which case studies currently generate code?

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- Confidently generating usable software artifacts without strong type information places significant stress on developers, resulting in a higher likelihood of bugs in artifacts.
- Existing "theories"/"*Models"[1] don't expose enough information. They must be enriched, so that we can pull more information from them in straightforward manner.

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What's the problem?

What makes up a “good” solution?

Current Progression

What are the next steps?

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Fin.

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References I


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