Jason Bachman and Alexander Sinapi

CSC 411

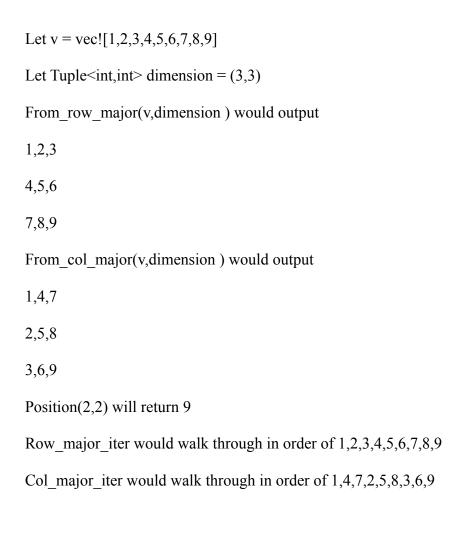
Prof. Daniels

6 October 2021

A2 Design Doc

- 1. What is the abstract thing you are trying to represent.
 - a. We are trying to represent a two dimensional array that contains dynamic, polymorphic values.
- 2. What functions will you offer, and what are the contracts that those functions must meet?
 - From_row major will take a vec of numbers and the dimensions of the vector in order to construct a 2d vector
 - From_col major will take a vec of numbers and the dimensions of the vector in order to construct a 2d vector
 - Row_major_iter will navigate through the 2d vector by visiting each element in each row
 - Col_major_iter will navigate through the 2d vector by visiting each element in each column
 - Position will take in a [x,y] position and return the element stored at that location

What examples do you have of what the functions are supposed to do?



- 3. What representation will you use and what invariants will it satisfy?
 - a. A 2d vector that will represent a matrix of elements in the form of:
 - i. Tuple<int, int. T>, where x, y, and the element are all together at a specific x, y coordinate within the 2d vector.
- 4. When a representation satisfies all invariants what abstract thing from step <- does it represent

a. A complete representation would be of a specific point in a given matrix of elements

5. What test cases have you devised?

- 6. What programming idioms will you need?
 - a. An idiom for mapping vectors

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b.	An idiom	tor.	accessing	elements	ın	a matrix
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b.	An idiom for accessing elements in a matrix	
c.	Idiom for iterating through a matrix of elements	

Lib.rs needs to be submitted with design doc as well

Just needs fields of array2 struct and function signatures. Does not need to compile.