

goal-oriented roadmap

	package-I	package-II	package-III	package-IV
Date - Version	Q2.2021 - v0.9	Q3.2021 - v1.0	Q4.2021 - v1.1	Q1.2020 - v1.2
Goal	<ul style="list-style-type: none"> - implement <ul style="list-style-type: none"> - vision board - roadmap - backlog - test basic functionalities of system 	<ul style="list-style-type: none"> - implement visual library test platform - implement user types test platform - launch minimum viable product (mvp) 	<ul style="list-style-type: none"> - launch visual library - launch user management - launch social interactions - implement stats/graphs 	<ul style="list-style-type: none"> - launch new front-end design - launch stats/graphs
Key Features	<ul style="list-style-type: none"> - student and admin access - pdf view and manipulation - text annotation over pdf - drawing tool 	<ul style="list-style-type: none"> - user types (student, instructor, admin) and functionalities - social interactions - improved drawing tool - visual library 	<ul style="list-style-type: none"> - user types screens - improved visual library - Improved social interactions - stats&graphs 	<ul style="list-style-type: none"> - ux design - improved stats/graphs
Metrics	<ul style="list-style-type: none"> - platform can be tested by the team - unit testing (i.e. jasmin) 	<ul style="list-style-type: none"> - platform can be tested by the team and a pilot course - testing (functional, story) 	<ul style="list-style-type: none"> - platform can be tested by the team for several courses - testing 	<ul style="list-style-type: none"> - platform can be tested by the team for several courses - testing

technologies needed

	required	weight	type	purpose	details	research start
pdf.js	yes	5	js library	pdf render, view, edit		package-I
annotpdf	?	4	js library	pdf annotation	https://github.com/highkite/pdfAnnotate	package-I
hypothes.is	?	4	js library	pdf annotation	https://via.hypothes.is/ https://irvine.georgetown.edu/omains/ https://github.com/hypothesis	package-I
emargin	?	2	web service	pdf annotation		package-I
lacuna	?	3	web service	pdf annotation		package-I
perusall	?	5	web service	pdf annotation		package-I
pdfannotatejs	?	3	js library	pdf annotation		package-I
pdf-annotate.js	?	3	js library	pdf annotation	https://github.com/instructure/pdf-annotate.js	package-I
annotatorjs	?	5	js library	pdf annotation	http://docs.annotatorjs.org/en/latest/ http://docs.annotatorjs.org/en/v1.2.x/index.html	package-I
pdfjsannotator	?	4	js library	pdf annotation	https://github.com/kadetr/pdfjs-annotator	package-I
google auth	yes	5	web service/api	user access		package-I
node.js	yes	5	js library	backend		package-I
mongodb	yes	5	web service	database		package-I
mongoose	yes	5	js library	backend		package-I
express	yes	5	js library	backend		package-I
heroku	?	3	web service/api	hosting		package-I
jira	yes	5	web service	project management		package-I
github	yes	5	web service/api	version control		package-I
jasmin	?	4	js library	unit testing		package-II
react	?	4	js library	frontend		package-II
docker	?	3	web service/api	backend/ hosting		package-III
kubernetes	?	3	web service/api	backend/ hosting		package-III
react pdf highlight	?	3	js library			package-I

pdf libraries

	status	code	related libs	website	latest update	github	priority	comment - kemal
react pdf highlight	Selected	js	react	https://agentcooper.github.io/react-pdf-highlighter/	06.02.2021	https://github.com/agentcooper/react-pdf-highlighter	1	+ promising + react lib + well-designed
hypothes.is pdf.js, client	Pending	mustache, js	pdf.js	https://via.hypothes.is/ https://irvine.georgetown.domains/	01.04.2021	https://github.com/hypothesis/pdf.js-hypothes.is	2	initial research completed + documentation + functionality
annotpdf	pending	ts, js	pdf.js		25.03.2021	https://github.com/highkite/pdfAnnotate	2	initial research completed
pdf.js	pending	js	-	https://mozilla.github.io/pdf.js/	31.03.2021	https://github.com/mozilla/pdf.js/	3	initial research completed
pdf-lib	pending	ts	-	https://pdf-lib.js.org/	28.01.2021	https://github.com/Hopding/pdf-lib	3	
react pdf	pending	js	react	https://www.npmjs.com/package/react-pdf	01.04.2021	https://github.com/wojtekmaj/react-pdf	3	
pdfannotatejs	completed/ incompatible	js	pdf.js		31.03.2021	https://github.com/Submitty/pdf-annotate.js	1	- dependency issues - react integration
pdf-annotate.js	completed/ incompatible	js	pdf.js		21.12.2018 (no longer maintained)	https://github.com/instructure/pdf-annotate.js	-	+ - old version pdf annotator worked (html) - react failed - pdf viewer bugs
annotatorjs	completed/ incompatible	js	-	http://docs.annotatorjs.org/en/latest/ http://docs.annotatorjs.org/en/v1.2.x/index.html	14.11.2015	https://github.com/openannotation/annotator/	-	- old version - one more library
pdfjsannotator	completed/ incompatible	java, js	annotatorjs, pdf.js		31.03.2020	https://github.com/kadetr/pdfjs-annotator	-	- old version

Drawing Tools

	status	code	related libs	website	latest update	github	comment - kemal
react-sketch	first test completed	js	react, fabricjs	Npm old version	03.04.2021	https://github.com/tbolis/react-sketch	+react lib
painterro	selected	js		https://www.npmjs.com/package/painterro	22.04.2021	https://github.com/devforth/painterro	+vanillajs +many features +easy to integrate react
react canvas paint	requires new components& patching	js	react	https://www.npmjs.com/package/react-canvas-paint	08.03.2021	https://github.com/piotrussw/react-canvas-paint	+react -few features
react-painter	requires new components& patching		react	https://www.npmjs.com/package/react-painter	21.11.2020	https://github.com/aml2610/react-painter	+react - few features
vanillajs (no library)	custom tool can be an option	js					
fabricjs-react	low possibility, can be used partially	ts	react	https://www.npmjs.com/package/fabricjs-react	01.02.2021	https://github.com/asotog/fabricjs-react	+react +low level
litterally canvas	low possibility, can be used partially	js		http://literallycanvas.com/installing.html	29.10.2019	https://github.com/literallycanvas/literallycanvas-core	+many features +no dependencies -old version
canvas-designer	low possibility, can be used partially	js		https://www.npmjs.com/package/canvas-designer	03.03.2020	https://github.com/muaz-khan/Canvas-Designer	-old version +import pdf +many features
react drawing board	incompatible	ts	react, canvas	https://www.npmjs.com/package/react-drawing-board	19.01.2021	https://github.com/dilidili/react-drawing-board	+react +easy to use ui
react magic painter	incompatible	ts	react	https://codeadrian.hashnode.dev/magic-painter-christmas-hackathon-project	28.12.2020	https://github.com/codeAdrian/react-magic-painter	+react -few features

BOARD

Target Group	Business Goals	Needs	Product	Vision
EDUCATION	SMART <i>Specific, measurable, achievable, relevant, time-bound</i>	FL tools require improvement in terms of what it is capable of and what it is doing right now.	What is product?	Improve quality of education
Universities: art, architecture history, medicine, dentistry	Implement prototype, MVP	Visual library, drawing tool, more interaction with user (VR, AR)	Online education platform to enable FL	Enable teach from home???
K-12 schools: biology, maths, literature	Create/improve biz model	Simple, easy to use	K12, visual departments	Facilitate learning process for students&teachers
Special classes: yoga, mothership	Investigate relation between reedy application and learning curve	K12 enabled interfaces	assignment, highlights, course, comments, media	
USERS	STANDARD		What draws attention?	
Teachers, students, parents, school admin	Introduce product to market		Visual Library, K12 enabled (simple, easy), pedagogy	
	Create revenue stream			
	Branding			

User Stories

	Scenarios	Features
<i>i</i>	As a user, I can register/login the system in order to access course content.	Register functionality
		Login functionality
		Update user info
<i>ii</i>	As a user, I can view course content.	Display content
<i>iii</i>	As a user, I can select the highlights and review/add comments about it.	View highlight and related comments
		Add comment
		Update comment functionality
<i>iv</i>	As a user, I can highlight a course content and write about it.	Add highlight (text selection)
		Add highlight (area selection)
<i>v</i>	As a user, I can use sketch tool to express my comment/highlight.	Draw functionality
		Store drawing
<i>vi</i>	As a user, I can use a visual library item as reference my comment/highlight.	Search functionality
		Display results
<i>vii</i>	As a user, I can score (up, down) for highlights/comments.	Voting functionality
		Store votes
		Display votes
<i>viii</i>	As a user, I can view my personal stats.	View personal stats
<i>ix</i>	As an instructor, I can create courses, assignments, content, links.	Create/Read/Update/Delete course
		Create/Read/Update/Delete assignment
		Create/Read/Update/Delete course content
<i>x</i>	As an instructor, I can view course, assignment stats.	View course stats