



SynthMed

Enterprise Design Thinking





AI Agent for Medical Research Synthesis

powered by IBM watsonx Orchestrate

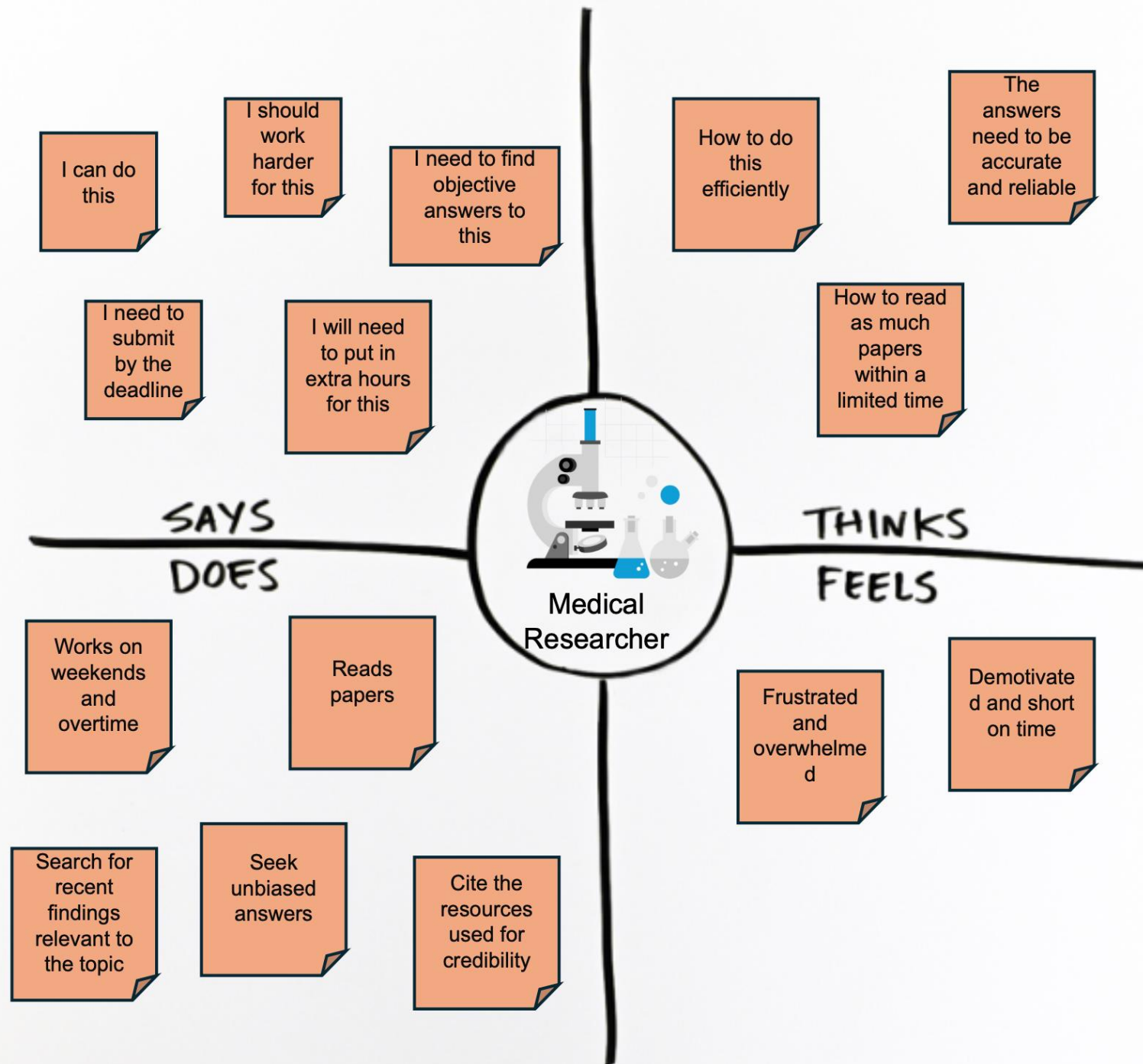
The Team Alignment Map

Mission:
Develop AI Medical Research Synthesis Agent

Period:
Sep 22 - Nov 28

Joint Objectives What do we intend to achieve together? 	Joint Commitments Who does what and with whom? 	Joint Resources What resources do we need? 	Joint Risks What can prevent us from succeeding? 
<p>Work with a diverse team to successfully complete the IBM SkillsBuild training.</p> <p>Collaborate and share ideas regarding AI in Healthcare challenge.</p> <p>The completion of a running prototype.</p>	<p>Team Roles:</p> <p>Team Lead: Zaynab Shakkour Solution Designer: Jay Warfield</p> <p>Research Lead: Andrew Kee Technical Lead: Communications Lead:</p>	<p>eLearning courses from IBM</p> <p>Training labs for coding and using IBM models</p> <p>Access to IBM cloud account to store and process the data with Python.</p> <p>Data Resources: would be scientific and research papers from PubMed or other databases, PDFs, and other open source databases</p>	<p>Data limitations, Time constraints and pulling together the right data in time.</p> <p>How to obtain user feedback (social media, etc).</p> <p>Users play an important role in helping to define an initial prototype followed by reviewing iterations with users for feedback.</p>

Empathy Map



Phases

Defining
research
question/
topic

info retrieval to
answer complex
questions

Referencing the
used resources

Doing

understa
nding the
research
question

Reading
current
research
relevant
to topic

find
papers
related to
topic

Find subjective
answers to complex
questions from
multiple resources

Proper
citation of
the answers
generated

Thinking

How to
do things
on time

How to
get
unbiased
answers

How to
get the
accurate
citations

Efficient way
to read as
much
papers as
possible

Feeling

Anxious
&
Over-wh
elmed

Short on
time

Frustrate
d with
the load
of
informati
on

Excited
once
having
answers

Motivate
d to write
up the
research
done

Needs Statement

Medical researchers
need help to expedite
reviews of volumes of
research papers.

Medical researchers
need help to synthesize
insights from volumes
of research papers.

Medical researchers
need answers to
complex questions with
citations.

To-Be Scenario Map

Phases

Defining
research
question/
topic

info retrieval to
answer complex
questions

Referencing the
used resources

Doing

Define the
research
question
for AI

Ask AI to find
all current
research
relevant to
topic

Ask AI to
find
papers
related to
topic

Ask AI to find
subjective answers to
complex questions
from multiple resources

Ask AI to provide
proper citation of
the answers
generated

Thinking

How to
use AI to
do things
on time

How to
prevent
AI from
biased
answers

How to
get AI to
provide
accurate
citations

How to use AI
to efficiently
provide as
much papers
as possible

Feeling

Less
anxious
knowing
that AI
can help

Short on
time

Less
frustrated
with the
load of
information

More
excited
once
having
answers

More
motivated to
write up the
research done

Prioritization Grid

High

Main Agent

Disease Agents

Local PDFs

RAG / LLM

Priority for the team

Prompt Lab

Backend Agents / Tools

Online PDFs

Source Citations

Flask or Streamlit

Juniper Notebook

Low

Low

Feasibility for the team

High

Main Agent

Disease Agents

Local PDFs

RAG/LLM

Prompt Lab

Backend Agents / Tools

Online PDFs

Source Citations

Flask or Streamlit

Juniper Notebooks