



SynthMed

Enterprise Design Thinking

AI Agent for Medical Research Synthesis

powered by IBM watsonx Orchestrate

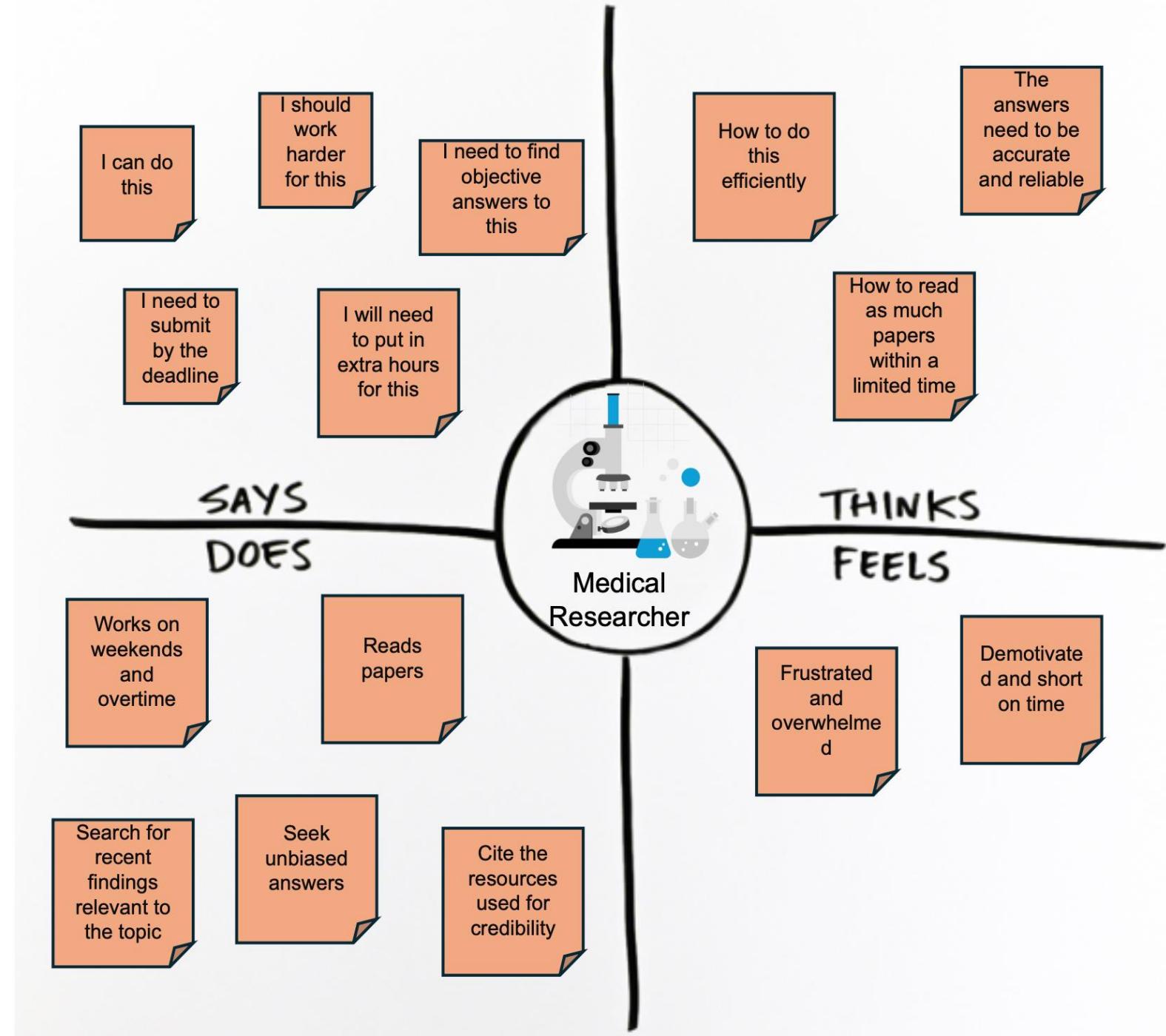
The Team Alignment Map

Mission:
Develop AI Medical Research Synthesis Agent

Period:
Sep 22 - Nov 28

Joint Objectives <small>What do we intend to achieve together?</small>	Joint Commitments <small>Who does what and with whom?</small>	Joint Resources <small>What resources do we need?</small>	Joint Risks <small>What can prevent us from succeeding?</small>
<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



As-Is Scenario Map

Phases

Defining research question/ topic

info retrieval to answer complex questions

Referencing the used resources

Doing

understanding 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 & Overwhelmed

Short on time

Frustrated with the load of information

Excited once having answers

Motivated 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

Solution Feature List

Main Agent

Disease Agents

Local PDFs

RAG/LLM

Prompt Lab

Backend Agents / Tools

Online PDFs

Source Citations

Flask or Streamlit

Juniper Notebooks