

The background is a dark gray with several concentric circles and arcs. Some of these arcs have degree markings, such as 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, and 260. There are also dashed lines and arrows indicating movement or rotation.

INTRODUCTION TO SOFTWARE DEVELOPMENT

WEEK 5 DAY 3

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FOR

OAKLAND UNIVERSITY

PREVIOUS SESSION REVIEW



QUESTIONS FROM LAST
SESSION?



TERMS TO LISTEN FOR

Scoping

- Determining tasks relevant to the goals of the project

Scope Creep

- Slow, unexpected widening of the initial scope

FUD

- Fear, Uncertainty and Doubt

Tech Debt

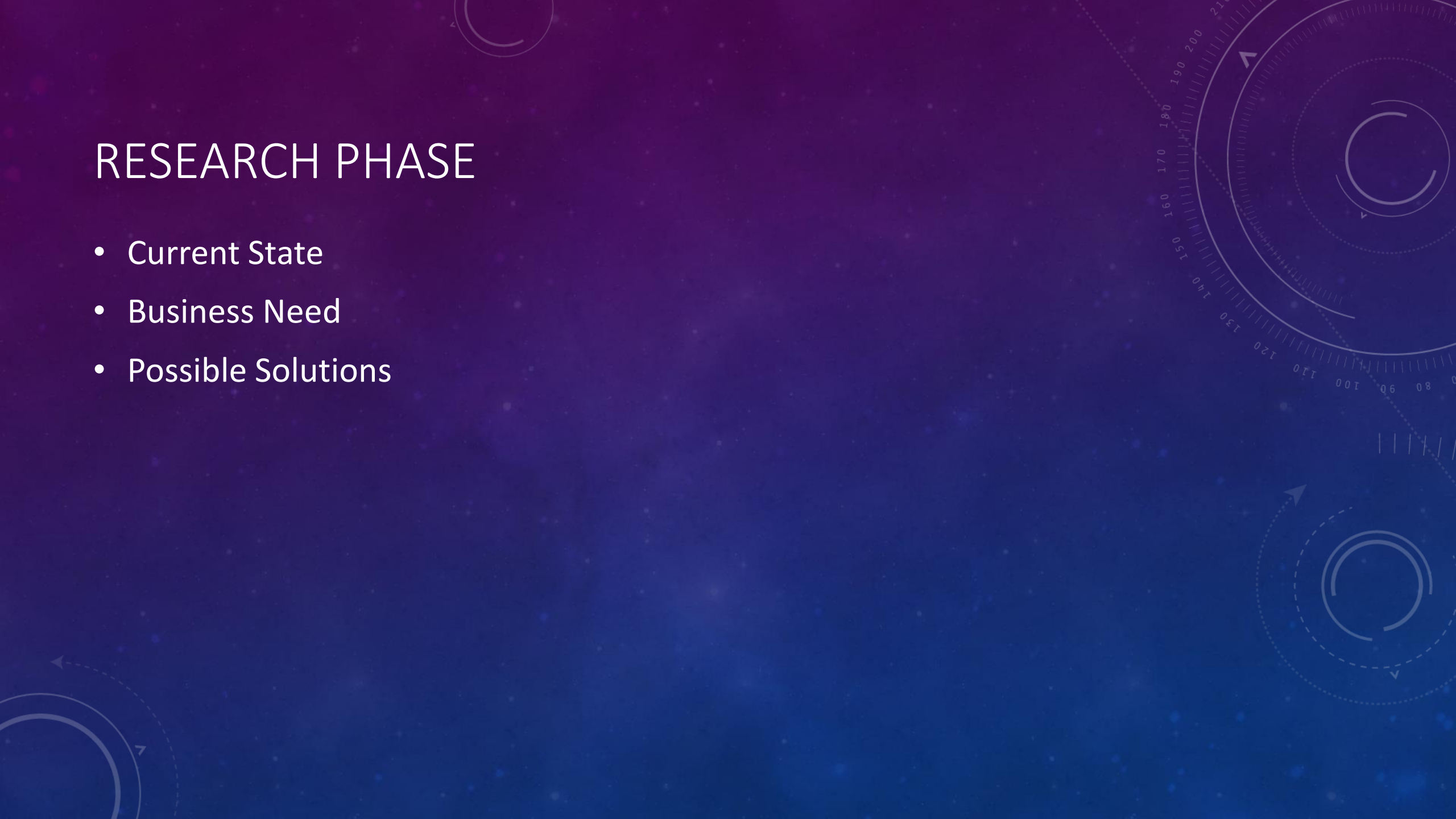
- Technology that we are responsible to maintain

The image is a composite graphic. On the left, a hot air balloon with vertical stripes of red, yellow, and pink is illuminated from below, floating over a desert landscape with sand dunes and sparse vegetation under a starry night sky. A large, semi-transparent circular scale is overlaid on the left side, with numbers ranging from 150 to 260. On the right, a large circular inset shows a close-up of a starry night sky, possibly the Milky Way. The text "GETTING STARTED" is written in white, sans-serif capital letters across the middle of the right side.

GETTING STARTED

RESEARCH PHASE

- Current State
- Business Need
- Possible Solutions



CURRENT STATE

- Why are we having a problem now?
 - Foreseeable or unforeseeable?
 - Lessons learned?
- What about our current technology is lacking?
- What technology do we have in this space now, and how is it working?
 - Complementary solution?
 - Complete rebuild of the space?

REFLECTING ON OUR ORGANIZATION

- Is this the first time we're adopting the SDLC?
- Is our org healthy?
- Do we need to make any changes before starting?
- How well is our documentation and organization of existing and legacy projects?

RESEARCHING OUR TECHNOLOGY

- Are we happy with the technology choices we've made so far?
- Can we fold in any lessons learned from our past decisions?
- What's the state of our integrations?

BUSINESS NEED

- What business problems is this app going to solve?
- How will this software solve that problem exactly?
 - Will any business or revenue needs impact the design the application's operation?
 - If so, how?
- Do we need to integrate with other companies?

POSSIBLE SOLUTIONS

- You don't need to do this alone!
 - Technology consultants
- Do complete research!

COMPARE CHART

Criteria	Product 1	Product 2	Product 3
Cost to license	xxx	x	xx
Cost to implement	x	xxx	xx
Ease of use	x	xx	xxx
Features	xx	x	xxx
Ongoing Costs	xxx	xx	xx

The background is a dark gray with several faint, light gray circular patterns. Some of these circles have arrows indicating a clockwise direction. A prominent feature is a wavy line composed of many small, colored dots in shades of green, purple, and black, which meanders across the middle of the image.

WHEN IS RESEARCH DONE?

SCOPING

- Scope should be:
 - Clear
 - Narrow/focused
 - Somewhat flexible

CREATING THE INITIAL SCOPE

- Research
 - Business need + possible solutions = scope

SCOPE DOCUMENTATION

- What we need in this document:
 - Project summary
 - Project deliverables
 - Out of scope
 - Constraints
 - Assumptions
 - Risks
 - Timeline
 - Budget
 - Criteria for success



MAINTAINING CONSISTENCY OF SCOPE



DEFENDING AGAINST SCOPE CREEP



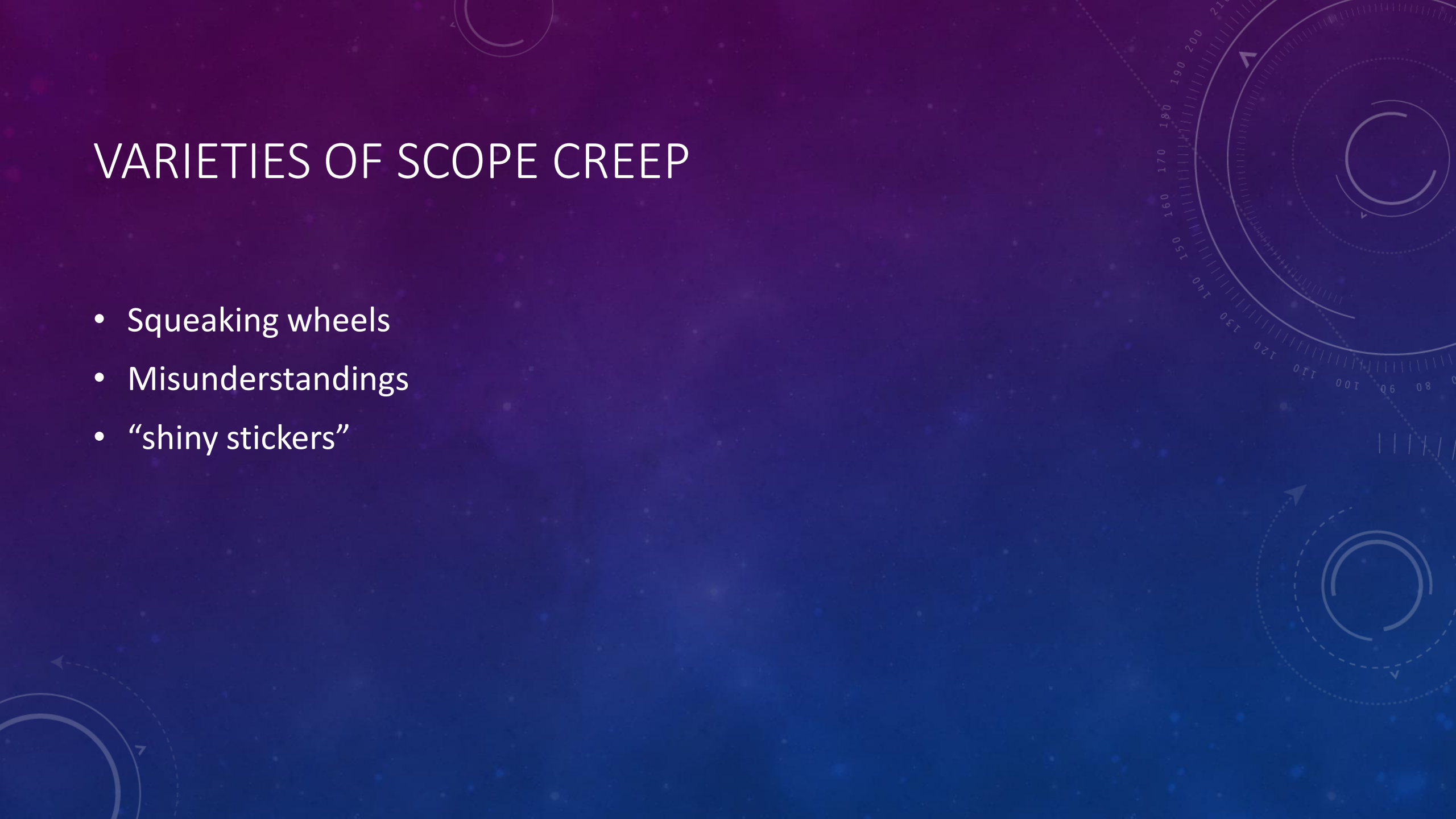
WHAT IS
SCOPE
CREEP?



RECOGNIZING SCOPE CREEP

VARIETIES OF SCOPE CREEP

- Squeaking wheels
- Misunderstandings
- “shiny stickers”





10 MINUTE BREAK

WIDENING SCOPE RESPONSIBLY

VANILLA ICE SAYS:



WIDENING SCOPE RESPONSIBLY CONT'

- Be specific about what the new tasks aim to achieve
- Ensure everyone knows an exception has been made
- Document!



MANAGING ROUTINE WORK

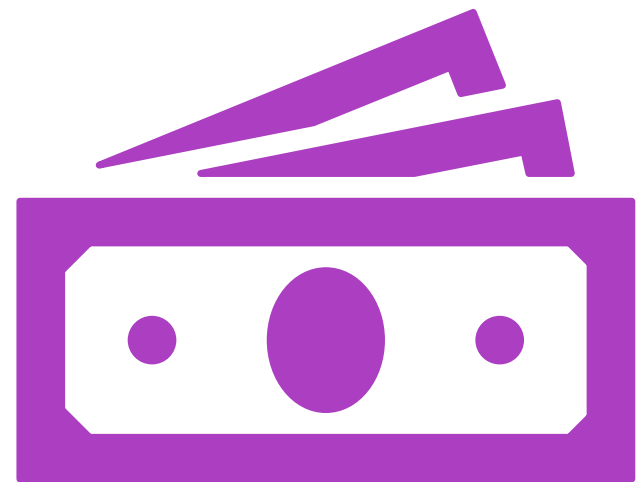
MANAGING TASK WORKFLOW

- Types of tasks:
 - Routine
 - Simple
 - Complex

An aerial photograph of a snowy landscape with several large, rounded snow piles. A semi-transparent circular inset on the right side provides a closer view of one of these piles, showing its smooth, undulating surface and deep shadows. The background image is overlaid with faint, light-blue geometric patterns, including concentric circles and radial lines, suggesting a technical or scientific theme.

SNOW PILES

“TECH DEBT”



MITSCKE

THE IKEA DESK





HEART SURGERY



LAUNCH & PILOTING





PHASED LAUNCH APPROACH



PHASED LAUNCH APPROACH CONT'

- Accurate Planning
- Simplified prioritization
- Clearer team responsibilities
- Transparent Progress tracking w/feature flags
- Reduced scope creep



10 MINUTE BREAK

PHASED ROLLOUT STAKEHOLDER ORGANIZATIONS



PHASED ROLLOUT



PILOTING





HOW DOES A PRODUCT PILOT WORK?

- What is a pilot?
 - Launching a smaller version of the end-product
 - Launched to a small group of users
- We do this to learn things we didn't know

MANAGING HUMAN BIASES



WHAT IS FUD?

- Fear
- Uncertainty
- Doubt





ON FUD AND ITS EFFECTS

The background is a dark, textured surface featuring several large, stylized question marks in shades of brown and grey. Overlaid on these are various circular elements, including solid and dashed lines, concentric circles, and radial tick marks, some of which resemble a clock face or a technical diagram. The overall aesthetic is modern and conceptual, suggesting themes of inquiry, uncertainty, and complex systems.

MANAGING FEAR UNCERTAINTY AND DOUBT



THE FUD PLAGUE

*Vos Creditis, als eine fabel,
quod scribitur vom Doctor schnabel,
der fugit die Contagion
et antwort seinen Lohn darnem*

*Quis non deberet sehr erschreck
für seiner Virgul oder stecken,
qua loquitur, als wär er stumm
und deutet sein consilium.*



SUNK COST

POSSIBLE METRIC CONSIDERATIONS

- Key Performance Indicators (KPIs)
- Statistics
 - Closed tickets
 - Commits & PRs
 - Income based measurement?

STRUCTURING QUARTERLY

- Benefits of structuring around quarterly goals:

QUIZ TIME!



SESSION REVIEW



QUESTION OR
CLARIFICATIONS?



The background is a dark gray with several faint, light gray geometric patterns. In the top left, there is a small circle with a dashed line and an arrow. In the top right, there is a large circular scale with numbers from 0 to 210 and a dashed line with an arrow. In the bottom left, there is a circular pattern with a dashed line and an arrow. In the bottom right, there is a circular pattern with a dashed line and an arrow.

NEXT SESSION PREVIEW

The background is dark with several faint, light-gray circular elements. In the top-left, there's a small circle with a partial arc. In the top-right, a large circular scale with degree markings from 90 to 210 and an arrow pointing counter-clockwise. In the bottom-left, a dashed circular arrow pointing clockwise. In the bottom-right, a circular graphic with concentric solid and dashed lines and an arrow pointing clockwise.

SEE YOU NEXT TIME!