# Challenge Report (Graded out of 20)

|   | Exemplary<br>4  | Proficient<br>3   | Marginal<br>2  | Unacceptable<br>1   |
|---|---|---|--|---|
| Q1. Description of<br>Assumptions       | The description of the assumptions is clear and detailed.   | The description of the assumptions is mostly clear and detailed.  | The description of the assumptions is somewhat unclear and lacking details.  | The description of the assumptions is unclear and lacking details.  |
| Q2. Rationale Behind<br>Assumptions     | The rationale behind the<br>assumptions is supported by<br>concrete evidence, e.g.,<br>gathered from user interviews<br>or reading (with citation). The<br>description of the rationale is<br>clear and detailed.   | The rationale behind the<br>assumptions is supported by<br>concrete evidence, e.g.,<br>gathered from user interviews<br>or reading (with citation). The<br>description of the rationale is<br>mostly clear and detailed.  | The rationale behind the<br>assumptions is lacking support<br>by concrete evidence, e.g.,<br>gathered from user interviews<br>or reading (with citation). The<br>description of the rationale is<br>somewhat unclear and lacking<br>details.   | The rationale behind the<br>assumptions is lacking support<br>by concrete evidence, e.g.,<br>gathered from user interviews<br>or reading (with citation). The<br>description of the rationale is<br>unclear and lacking details.  |
| Q3. Challenging<br>Assumptions          | The team has challenged all of<br>their assumptions substantially<br>through both internal activities<br>(i.e., reflecting on their design)<br>and external activities (i.e.,<br>taking concrete steps to ask<br>probing questions during user<br>interviews, or seek feedback<br>from third parties about their<br>designs). | The team has challenged some<br>of their assumptions<br>adequately through both<br>internal activities (i.e., reflecting<br>on their design) and external<br>activities (i.e., taking concrete<br>steps to ask probing questions<br>during user interviews, or seek<br>feedback from third parties<br>about their designs). | The team has challenged some<br>of their assumptions<br>adequately through internal<br>activities (i.e., reflecting on their<br>design) OR external activities<br>(i.e., taking concrete steps to<br>ask probing questions during<br>user interviews, or seek<br>feedback from third parties<br>about their designs), but not<br>both. | The team has challenged some<br>of their assumptions, but not<br>through internal activities (i.e.,<br>reflecting on their design) OR<br>external activities (i.e., taking<br>concrete steps to ask probing<br>questions during user<br>interviews, or seek feedback<br>from third parties about their<br>designs). |
| Q4. Insights and Findings               | The insights and findings are<br>well articulated and novel (i.e.,<br>taught the team something<br>new; provided new information<br>towards improving the<br>understanding of the problem<br>or the design of the solution).  | The insights and findings are<br>novel (i.e., taught the team<br>something new; provided new<br>information towards improving<br>the understanding of the<br>problem or the design of the<br>solution), but not well<br>articulated.  | The insights and findings are<br>well articulated, but trivial (i.e.,<br>do not provide new information<br>towards improving the<br>understanding of the problem<br>or the design of the solution).  | The insights and findings are<br>not well articulated and are<br>trivial (i.e., do not provide new<br>information towards improving<br>the understanding of the<br>problem or the design of the<br>solution).   |
| Q5. New Assumptions and<br>Future Plans | The new assumptions follow<br>logically from the insights and<br>findings. The future plans<br>contain concrete and<br>actionable steps.  | The new assumptions mostly<br>follow logically from the<br>insights and findings. The<br>future plans contain concrete<br>and actionable steps.   | A few of the new assumptions<br>do not follow logically from the<br>insights and findings. The<br>future plans contain vague<br>suggestions, and not concrete<br>and actionable steps.   | Many of the new assumptions<br>do not follow logically at all<br>from the insights and findings.<br>The future plans contain vague<br>suggestions, and not concrete<br>and actionable steps.  |

# Final Prototype (Graded out of 12)

|   | Exemplary<br>4   | Proficient<br>3  | Marginal<br>2   | Unacceptable<br>1   |
|---|--|--|---|---|
| <b>Fit to Problem</b><br>Completeness and<br>Appropriateness of the<br>Features for the Problem                             | The prototype solution<br>addresses the problem<br>perfectly. It provides features<br>that address multiple aspects<br>of the problem, and the solution<br>is highly likely to solve the<br>problem for each of the<br>stakeholders or users of the<br>system.               | The prototype solution<br>addresses the problem well,<br>but there are a few (e.g., 1)<br>aspects of the problem that the<br>prototype solution failed to<br>address adequately. The<br>solution is likely to solve the<br>problem for multiple<br>stakeholders or users of the<br>system. | The prototype solution<br>addresses the problem well,<br>but there are many (2-3)<br>aspects of the problem that the<br>prototype solution failed to<br>address adequately. The<br>solution is unlikely to solve the<br>problem for multiple<br>stakeholders or users of the<br>system. | The prototype solution does not<br>address the problem well at all.<br>There are many (4+) aspects of<br>the problem that the prototype<br>solution failed to address<br>adequately. The solution is<br>unlikely to solve the problem<br>for multiple stakeholders or<br>users of the system. |
| <b>Usability</b><br>Workflow, Information<br>Architecture, Terminologies,<br>Clarity of Navigation<br>Structure             | The prototype has no usability<br>issues. The workflow is<br>intuitive, self-explanatory, and<br>error tolerant.<br>Labels/terminologies are clear,<br>consistent and self-explanatory.<br>There is no component of the<br>system that may cause<br>confusion for the users. | The prototype mostly has no<br>usability issues. There are a<br>few (e.g., 1-2) problems with<br>workflow, labels/terminologies<br>and other components of the<br>system that may cause<br>confusion for the users.  | The prototype has substantial<br>usability issues. There are<br>quite a few problems (3+) with<br>workflow, labels/terminologies<br>and other components of the<br>system that may cause<br>confusion for the users.  | The prototype is completely<br>unusable. There are a large<br>number of problems (5+) with<br>workflow, labels/terminologies<br>and other components of the<br>system that may cause<br>confusion for the users.  |
| <b>Visual Design</b><br>Colors, Fonts, Graphics,<br>Logo, Layout; Aesthetics<br>Appropriate for the Problem<br>and Audience | The visual design is extremely<br>inviting, appealing and<br>appropriate for the purpose of<br>the application. The visual<br>design is consistent across<br>pages.  | The visual design is somewhat<br>inviting, appealing and<br>appropriate for the purpose of<br>the application. The visual<br>design is mostly consistent<br>across pages.  | The visual design is lacking, in<br>terms of being inviting,<br>appealing or appropriate for the<br>purpose of the application.<br>There are a few<br>inconsistencies in the visual<br>design across pages.   | The visual design is not<br>inviting, appealing or<br>appropriate for the purpose of<br>the application. There are<br>many inconsistencies in the<br>visual design across pages.  |

# **Demo Video** (Graded out of 12)

|  | Exemplary<br>4  | Proficient<br>3  | Marginal<br>2  | Unacceptable<br>1  |
|--|---|--|--|--|
| Motivation<br>Compelling statement of the<br>problem   | The problem is well explained<br>(very clear and explicit) and<br>well motivated (backed with<br>concrete evidence), and the<br>argument is<br>compelling/convincing. | The problem is somewhat well<br>explained (clear and explicit)<br>and well motivated (backed<br>with concrete evidence), and<br>the argument is somewhat<br>compelling/convincing. | The problem is only marginally<br>well explained (unclear or<br>vague) and well motivated<br>(backed with concrete<br>evidence), and the argument is<br>somewhat<br>compelling/convincing. | The problem description is<br>severely lacking, either<br>because it is not well explained<br>(very unclear or vague), not<br>well motivated (backed with<br>concrete evidence), or because<br>the argument is not<br>compelling/convincing. |
| <b>Prototype Demo</b><br>Clear description of the key<br>features  | It is perfectly clear what the key<br>features of the prototype are,<br>and that the features can<br>adequately address the<br>problem at hand.                       | It is somewhat clear what the<br>key features of the prototype<br>are, and that the features can<br>adequately address the<br>problem at hand.                                     | It is somewhat clear what the<br>key features of the prototype<br>are, but it is unclear as to how<br>the features can adequately<br>address the problem at hand.                          | It is unclear what the key<br>features of the prototype are,<br>and how the features can<br>adequately address the<br>problem at hand.   |
| <b>Delivery</b><br>Adequate volume/energy,<br>appropriate pace, diction,<br>enthusiasm/energy, effective<br>use of visual aids | Good volume and energy;<br>proper pace and diction; visual<br>aids used effectively; overall<br>delivery is very polished   | Adequate volume and energy;<br>generally good pace and<br>diction; visual aids used<br>adequately; overall delivery is<br>mostly polished  | More volume/energy needed at<br>times; pace too slow or fast;<br>visual aids used poorly; overall<br>delivery is a little hesitant   | Low volume or energy; pace<br>too slow or fast; poor diction;<br>visual aids very poorly used;<br>overall delivery is very hesitant  |

### **Presentation:** Challenge Report/Final Presentation (Graded out of 20)

|  | Exemplary<br>4   | Proficient<br>3  | Marginal<br>2   | Unacceptable<br>1  |
|--|--|--|---|--|
| <b>Content</b><br>Level of detail, depth,<br>appropriate length,<br>adequate background of<br>information  | Presentation provides excellent<br>depth and detail; all needed<br>details included; all ideas are<br>well developed; presentation is<br>within specified length                                       | Presentation provides good<br>depth and detail; all needed<br>details included; most ideas<br>are well developed;<br>presentation is within specified<br>length  | Presentation provides<br>adequate depth; few needed<br>details are omitted; major ideas<br>adequately developed;<br>presentation is within specified<br>length                          | Presentation provides little<br>depth; many needed details are<br>omitted; major ideas not/barely<br>developed; presentation is too<br>long/short  |
| <b>Organization/Clarity</b><br>Appropriate introduction,<br>body, and conclusions;<br>logical ordering of ideas;<br>transitions between major<br>points  | Ideas are presented in logical<br>order with effective transitions<br>between major ideas;<br>presentation is clear and<br>concise   | Most ideas are in logical order<br>with adequate transitions<br>between most major ideas;<br>presentation is generally clear<br>and understandable   | Some ideas not presented in<br>proper order; transitions are<br>needed between some ideas;<br>some parts of presentation may<br>be wordy or unclear                                     | Ideas are not presented in<br>proper order; transitions are<br>lacking between major ideas;<br>several parts of presentation<br>are wordy or unclear   |
| <b>Documentation</b><br>Proper support and sourcing<br>for major ideas, inclusion of<br>visual aids that support<br>message                              | Effective message support<br>provided in the form of facts<br>and visual aids; sourcing is<br>current, credible, relevant and<br>well used for major ideas ;<br>visual aids are clear and well<br>used | Adequate message support<br>provided for key concepts by<br>facts and visual aids; sourcing<br>is generally adequate, credible<br>and relevant; visual aids are<br>clear                                 | Some message support<br>provided by facts and visual<br>aids; some sourcing may be<br>irrelevant, not credible or thin,<br>visual aids are a little confusing                           | Little message support<br>provided by facts and visual<br>aids; inadequate<br>sourcing/sourcing is mostly<br>irrelevant and not credible;<br>visual aids are confusing                           |
| <b>Delivery</b><br>Adequate volume,<br>appropriate pace, diction,<br>personal appearance,<br>enthusiasm/energy, posture,<br>effective use of visual aids | Good volume and energy;<br>proper pace and diction;<br>avoidance of distracting<br>gestures; professional<br>appearance; visual aids used<br>effectively; overall delivery is<br>very polished         | Adequate volume and energy;<br>generally good pace and<br>diction; few or no distracting<br>gestures; professional<br>appearance; visual aids used<br>adequately; overall delivery is<br>mostly polished | More volume/energy needed at<br>times; pace too slow or fast;<br>some distracting gestures or<br>posture; adequate appearance;<br>visual aids; overall delivery is a<br>little hesitant | Low volume or energy; pace<br>too slow or fast; poor diction;<br>distracting gestures or posture;<br>unprofessional appearance;<br>visual aids poorly used; overall<br>delivery is very hesitant |
| Interactions<br>ability to listen and/or<br>answer questions   | Excellent listening skills (e.g.,<br>near perfect understanding of<br>the questions and only seeked<br>meaningful clarification);<br>answers audience questions<br>with confidence and accuracy        | Displays ability to listen (e.g.,<br>understood most of the<br>questions and seeked<br>clarification when necessary);<br>provides adequate answers to<br>audience questions                              | Better listening skills needed<br>(e.g., misunderstood parts of<br>the questions, did not seek<br>clarification); some difficulty<br>answering audience questions                       | Poor listening skills (e.g., did<br>not understand the questions at<br>all, did not seek clarification);<br>uneasiness or inability to<br>answer audience questions                              |

Based on: https://www.purdue.edu/science/Current\_Students/curriculum\_and\_degree\_requirements/oral\_rubrics\_gray.pdf

## Blog Post: Design Process (Graded out of 20)

|  | Exemplary<br>4   | Proficient<br>3   | Marginal<br>2  | Unacceptable<br>1   |
|--|--|---|--|---|
| Compelling problem<br>statement  | Provide a convincing argument,<br>backed by substantial evidence<br>that the problem is important<br>and worth addressing.   | Provide a somewhat<br>convincing argument, backed<br>by some evidence that the<br>problem is important and worth<br>addressing.   | Provide a somewhat<br>convincing argument, but<br>provide no concrete evidence<br>that the problem is important<br>and worth addressing.   | Provide no argument, with no<br>concrete evidence to support<br>the fact that the problem is<br>important and worth<br>addressing.  |
| Documentation of Design<br>Process   | Excellent use of visual aids<br>(e.g., images of artifacts) to<br>explain the design process.<br>The description of the<br>design activities<br>demonstrate full<br>understanding of the<br>purpose of the design<br>activities. | Good use of visual aids<br>(e.g., images of artifacts) to<br>explain the design process.<br>The description of the<br>design activities<br>demonstrate adequate<br>understanding of the<br>purpose of the design<br>activities. | Poor use of visual aids (e.g.,<br>images of artifacts) to<br>explain the design process.<br>The description of the<br>design activities<br>demonstrate marginal<br>understanding of the<br>purpose of the design<br>activities, with a few<br>misunderstandings. | No use of visual aids (e.g.,<br>images of artifacts) to<br>explain the design process.<br>The description of the<br>design activities<br>demonstrate poor<br>understanding of the<br>purpose of the design<br>activities, with many<br>misunderstandings. |
| Quality of the Design<br>Artifacts<br>Qualities of Persona, Empathy<br>Maps, Paper prototypes,<br>High-Fidelity prototypes | Design activities were perfectly<br>executed, producing high<br>quality design artifacts.  | Design activities were mostly<br>well executed, producing good<br>quality design artifacts.<br>However, a few (e.g., 1) of the<br>design artifacts can be further<br>improved.  | Design activities were not<br>always well executed,<br>producing marginally<br>acceptable quality design<br>artifacts. However, a number<br>(2-3) of design artifacts can be<br>further improved.  | Design activities were not<br>always well executed,<br>producing poor quality design<br>artifacts. A large number (4+)<br>of design artifacts can be<br>further improved.   |
| Use of Interviews and<br>Feedback to Inform<br>Iterative Design  | Excellent insights (surprising,<br>non-obvious) were drawn from<br>user interviews, and applied to<br>iteratively modify the prototype<br>design throughout the design<br>process.   | Good insights (although not<br>always surprising or<br>non-obvious) were drawn from<br>user interviews, and applied to<br>iteratively modify the prototype<br>design throughout the design<br>process.                          | Good insights (although not<br>always surprising or<br>non-obvious) were drawn from<br>user interviews, but not applied<br>to iteratively modify the<br>prototype design throughout<br>the design process.   | Only a few insights (not too<br>surprising or non-obvious) were<br>drawn from user interviews, but<br>not applied to iteratively modify<br>the prototype design<br>throughout the design process.   |

## CS649 Research Report (Graded out of 16)

|                                | Exemplary<br>4   | Proficient<br>3   | Marginal<br>2   | Unacceptable<br>1   |
|--------------------------------|--|---|---|---|
| Introduction & Related<br>Work | The problem is well-motivated,<br>with a substantial amount of<br>concrete evidence for why the<br>problem is interesting and worth<br>studying. The related work section<br>is comprehensive and covers a<br>substantial number of prior work<br>properly grouped into themes,<br>and explains how the proposed<br>research studies extend these<br>prior work. | The problem is somewhat<br>well-motivated, with some<br>concrete evidence for why the<br>problem is interesting and<br>worth studying. The related<br>work section has good<br>coverage, and covers an<br>adequate number of prior work<br>properly grouped into themes,<br>but does not explain how the<br>proposed research studies<br>extend these prior work. | The problem is only marginally<br>well-motivated, with only a few<br>concrete evidence for why the<br>problem is interesting and<br>worth studying. The related<br>work section is missing some<br>key aspects of the problem,<br>and covers only a small<br>number of prior work, not<br>always properly grouped into<br>themes and does not explain<br>how the proposed research<br>studies extend these prior<br>work. | The problem is not<br>well-motivated at all, lacking<br>any concrete evidence for why<br>the problem is interesting and<br>worth studying. The related<br>work section is missing many<br>key aspects of the problem,<br>and covers only a small<br>number of prior work, not<br>properly grouped into themes<br>and does not explain how the<br>proposed research studies<br>extend these prior work |
| Research Questions             | The research<br>questions/hypotheses are novel,<br>clearly stated and its significance<br>to HCI research, if answered, is<br>clearly explained.   | The research<br>questions/hypotheses are<br>somewhat novel, somewhat<br>clearly stated and its<br>significance to HCI research, if<br>answered, is somewhat clearly<br>explained.   | The research<br>questions/hypotheses are not<br>novel, and their description is<br>somewhat unclear. The<br>significance to HCI research, if<br>answered, is not explained<br>clearly.  | The research<br>questions/hypotheses are not<br>novel, and their description is<br>very unclear. The significance<br>to HCI research, if answered, is<br>not explained at all.  |
| System Description             | The components/features of the<br>system are explained clearly. The<br>rationale behind the design is<br>explained clearly. Visual aids are<br>effectively used to support the<br>system description.  | The components/features of<br>the system are explained<br>somewhat clearly. The<br>rationale behind the design is<br>explained somewhat clearly.<br>Visual aids are somewhat<br>effectively used to support the<br>system description.  | The components/features of<br>the system are explained, but<br>not clearly. The rationale<br>behind the design is explained,<br>but not clearly. Visual aids are<br>not effectively used to support<br>the system description.  | The components/features of<br>the system are not clearly<br>explained at all. The rationale<br>behind the design is not clearly<br>explained at all. Visual aids are<br>not used at all to support the<br>system description.   |
| Study Design                   | The chosen methodologies are<br>appropriate for the research<br>question and clearly explained.<br>The study designs are perfect.  | The chosen methodologies are<br>appropriate for the research<br>question and explained<br>somewhat clearly. But the<br>study designs are lacking in a<br>few (1-2) ways.  | Some of the chosen<br>methodologies are not<br>appropriate for the research<br>question and explained, but not<br>clearly. But the study designs<br>are lacking in multiple ways<br>(3+) ways.  | Many of the chosen<br>methodologies are not<br>appropriate for the research<br>question and are not explained<br>clearly at all. The study designs<br>are lacking in a substantial<br>number of ways (4+) ways.   |