| )    | 0                    | Task<br>Mode        | Task Name  |  |            | Duratio        | on Start              | Finish      | Predecessors                      | Resource Names                           | S |
|------|----------------------|---------------------|--|--|------------|----------------|-----------------------|-------------|-----------------------------------|--|---|
| 0    |                      | -5                  | <b>Discovery</b>                                       | Tool Software Develo   | opment     | 68 da          | ys Mon 9/3/18         | Tue 12/4/18 |                                   |  |   |
| 1    | 4                    | *                   | Explorati  | on Phase I   |            | 21 day         | ys Mon 9/3/18         | Sun 9/23/18 |                                   |  |   |
| 2    | <b>III</b>           | -                   | Popula   | te the WinBook   |            | 10 day         | ys Mon 9/10/18        | Wed 9/19/18 |                                   | Operational Concept En                   | Į |
| 3    | <b>=</b>             | 5                   |  | Win-win session #1: Discuss and clarify client's needs           |            | 2 days         | Mon 9/17/18           | Tue 9/18/18 |                                   | Feasibility Analyst,II<br>V&V,Life Cycle |   |
| 4    |                      | -5                  | Conduct risk analysis and develop risk mitigation plan |  | 3 days     | Fri 9/21/18    | Sun 9/23/18           | 3           | Feasibility Analyst,Life<br>Cycle |  |   |
| 5    | q                    | *                   | Develo   | p use cases  |            | 4 days         | Wed 9/19/18           | Sat 9/22/18 | 3                                 | Feasibility Analyst,Life C               | , |
| 6    | 4                    | *                   | Valuation  | n Phase I  |            | 3 days         | Fri 9/21/18           | Sun 9/23/18 |                                   |  |   |
| 7    | <b>=</b>             | -5                  |  | in session #2: Develop in the description                        | initial    | 1 day          | Fri 9/21/18           | Fri 9/21/18 | 3                                 | Feasibility Analyst,II<br>V&V,Life Cycle |   |
| 8    |                      | -5                  | Validat  | te crawling based trend  | identifier | 1 day          | Fri 9/21/18           | Fri 9/21/18 | 3                                 | Prototyper,Software Arc                  |   |
| 9    | <b>III</b>           | -5                  | Validat  | te API based trend iden  | tifier     | 3 days         | Fri 9/21/18           | Sun 9/23/18 | 3                                 | Prototyper,Software Arc                  |   |
| 10   | 4                    | *                   | Foundati   | Foundations Phase I  |            | 5 days         | Mon 9/24/18           | Fri 9/28/18 |                                   |  |   |
| 11   | 4                    | -5                  | Design   | Design preliminary system  |            | 2 days         | Mon 9/24/18           | Tue 9/25/18 | 3,7,5                             | System Architect,Softwa                  | 3 |
| 12   | <b>(</b>             | *                   |  | Investigate Facebook API for API based trend crawler prototyping |            | 4 days         | Mon 9/24/18           | Thu 9/27/18 | 3,7,5                             | Prototyper                               |   |
| 13   | <b>Ⅲ</b><br><b>♀</b> | -5                  |  | Investigate Twitter API, build feed crawler prototype            |            | 4 days         | Mon 9/24/18           | Thu 9/27/18 | 3,7,5                             | Prototyper                               |   |
| 14   | Ÿ                    | -5                  | Protot   | ype Google Trends feed   | d crawler  | 4 days         | Mon 9/24/18           | Thu 9/27/18 | 3,7,5                             | Prototyper                               |   |
| 15   | <b>=</b>             | -9                  |  | ype competitor perforn<br>is with ShareCount API                 | nance      | 4 days         | Mon 9/24/18           | Thu 9/27/18 | 3,7,5                             | Prototyper                               |   |
| 16   |                      | -9                  |  | ype frontend UI in Sket<br>n, and Balsamiq                       | ch,        | 4 days         | Mon 9/24/18           | Thu 9/27/18 | 3,7,5                             | Prototyper                               |   |
| 17   | -                    | -5                  | Implen   | nent presentation slide  | deck       | 4 days         | Mon 9/24/18           | Thu 9/27/18 | 3,7,5                             | Project Manager, Protot                  | \ |
|      |                      |                     |  | Task   |            |                | Inactive Summary      |             | External Tasks                    |  |   |
|      |                      |                     |  | Split  |            |                | Manual Task           |             | External Milestone                | $\Diamond$                               |   |
|      |                      |                     | T 16.6   | ool Softwar  Milestone  Summary  Project Summary                 |            | Duration-only  |                       |             | Deadline                          | •  |   |
| -    |                      | iscovery<br>11/13/1 |  |  |            |                | Manual Summary Rollup |             | Progress                          |  |   |
| ale. | rue                  | 11/15/1             | o  |  |            | Manual Summary |                       |             | Manual Progress                   |  |   |
|      |                      |                     |  | Inactive Task  |            |                | Start-only            | С           | 2                                 |  |   |
|      |                      |                     |  |  |            |                | Finish-only           | 3           |                                   |  |   |
|      |                      |                     |  |  |            |                | Page 1                |             |                                   |  |   |

| D  | Task<br>Mode      | Task Name   | Duration | Start        | Finish       | Predecessors      | Resource Names                           |
|----|-------------------|---|----------|--------------|--------------|-------------------|--|
| 18 | <b>=</b>          | Update risk and risk mitigation plan                                | 4 days   | Mon 9/24/18  | Thu 9/27/18  |                   | Feasibility Analyst,Life C               |
| 19 | <b>4</b>          | Make initial drafts for project documentation                       | 4 days   | Mon 9/24/18  | Thu 9/27/18  | 3,7,5             | Requirement Engineer                     |
| 20 | <b>—</b>          | Conduct prototype presentation                                      | 1 day    | Fri 9/28/18  | Fri 9/28/18  | 11,12,13,14,15,16 | Feasibility Analyst,II V&\               |
| 21 | € 🖈               | Weekly Jira Individual Survey Submission                            | 79 days  | Mon 9/17/18  | Tue 12/4/18  |                   | Feasibility Analyst,II V&                |
| 34 | € 🖈               | Weekly Team Meeting   | 78 days  | Tue 9/18/18  | Tue 12/4/18  |                   | Feasibility Analyst,II V&                |
| 47 | €1≯               | <b>Bi-weekly Team Progress Report</b>                               | 84 days  | Thu 9/6/18   | Wed 11/28/18 |                   | Feasibility Analyst,II V&                |
| 54 | € 🖈               | <b>Bi-weekly Team Risk and Defects Report</b>                       | 84 days  | Thu 9/6/18   | Wed 11/28/18 |                   | Feasibility Analyst,II V&                |
| 61 | €1≯               | Bi-weekly Project Plan Update                                       | 84 days  | Thu 9/6/18   | Wed 11/28/18 |                   | Project Manager                          |
| 68 | €1≯               | <b>Bi-weekly Team Technical Debt Report</b>                         | 56 days  | Sat 10/6/18  | Fri 11/30/18 |                   | Feasibility Analyst,II V&                |
| 73 | <b>+</b>          | Exploration Phase II  | 16 days  | Tue 10/2/18  | Wed 10/17/18 |                   |  |
| 74 | *                 | Modify WinBook based on new scope requirements and client needs     | 10 days  | Tue 10/2/18  | Thu 10/11/18 |                   | Project Manager                          |
| 75 | *                 | Refine and build new use cases based on client's feedback and needs | 10 days  | Tue 10/2/18  | Thu 10/11/18 |                   | Operational Concept<br>Engineer,Project  |
| 76 | *                 | Conduct use case based effort estimation as a team                  | 1 day    | Fri 10/12/18 | Fri 10/12/18 | 75                | Feasibility Analyst,II<br>V&V,Life Cycle |
| 77 | *                 | Investigate methods to access historical data from data sources     | 3 days   | Mon 10/8/18  | Wed 10/10/18 |                   | Feasibility Analyst, Prototyper, Softv   |
| 78 | *                 | Design system and software architecture                             | 1 day    | Sat 10/13/18 | Sat 10/13/18 | 74,75,76          | Software<br>Architect,System             |
| 79 | 🐴 <del>&gt;</del> | Valuation Phase II  | 13 days  | Wed 10/10/18 | Mon 10/22/18 |                   | ·  |
| 80 | *                 | Develop frontend UI prototype iteration II based on new scope       | 5 days   | Fri 10/12/18 | Tue 10/16/18 |                   | Prototyper                               |

External Tasks Task Inactive Summary Split Manual Task External Milestone Milestone Deadline Duration-only Project: Discovery Tool Softwar Summary Manual Summary Rollup Progress Date: Tue 11/13/18 Manual Summary Manual Progress **Project Summary** Inactive Task Start-only Е Inactive Milestone Finish-only ] Page 2

| D    | 0          | Task<br>Mode           | Task Name    |  |               | Duration | Start                   | Finish       | Predecessors       | Resource Names                           |
|------|------------|------------------------|--------------|--|---------------|----------|-------------------------|--------------|--------------------|--|
| 81   | •          |                        |              | op backend data en<br>ype based on new s | •             | 5 days   | Fri 10/12/18            | Tue 10/16/18 |                    | Prototyper                               |
| 82   | Ÿ          | <b>*</b>               | Develo       | pp DC Package                            |               | 13 days  | Wed 10/10/18            | Mon 10/22/18 |                    |  |
| 83   | Ŷ          | *                      | Dev          | elop operational co                      | ncept         | 3 days?  | Sat 10/13/18            | Mon 10/15/18 |                    | Operational Concept En                   |
| 84   | 4          | *                      | Dev          | elop requirement s                       | pecification  | 3 days   | Sat 10/13/18            | Mon 10/15/18 |                    | Requirement Engineer                     |
| 85   | Ÿ          | *                      | Elab         | orate development                        | : life cycle  | 8 days   | Sat 10/13/18            | Sat 10/20/18 |                    | Life Cycle Planner                       |
| 86   | Ÿ          | *                      | Prep         | pare feasibility evide                   | ence          | 8 days   | Sat 10/13/18            | Sat 10/20/18 |                    | Feasibility Analyst                      |
| 87   | 4          | *                      | Foundati     | ons Phase II                             |               | 13 days  | Wed 10/10/18            | Mon 10/22/18 |                    |  |
| 88   | •          | *                      | Impler       | ment ABR deliverat                       | oles          | 5 days   | Sat 10/13/18            | Wed 10/17/18 |                    | Feasibility Analyst,II V&V,Life Cycle    |
| 89   | <b>III</b> | -5                     | Inte         | grate docs into slide                    | e deck        | 2 days?  | Mon 10/15/18            | Tue 10/16/18 |                    | Project Manager                          |
| 90   | Ÿ          | -5                     | Dry          | run ARB presentati                       | on            | 1 day?   | Wed 10/17/18            | Wed 10/17/18 | 89                 | Feasibility Analyst, II V&\              |
| 91   | 4          | *                      | Develo       | op DC Package (Con                       | tinue)        | 13 days  | Wed 10/10/18            | Mon 10/22/18 |                    |  |
| 92   | 4          | *                      | Prep         | oare for test plan                       |               | 10 days  | Sat 10/13/18            | Mon 10/22/18 |                    | Requirement Engineer,T                   |
| 93   | 4          | *                      | Plan         | quality manageme                         | nt            | 10 days  | Sat 10/13/18            | Mon 10/22/18 |                    | Quality Engineer                         |
| 94   | •          | *                      | Elab<br>prod | oorate verification a<br>cess            | nd validation | 10 days  | Sat 10/13/18            | Mon 10/22/18 |                    | Tester, Quality<br>Engineer, Requirement |
| 95   |            | *                      | Develop      | ment Phase                               |               | 29 days  | Tue 10/23/18            | Fri 11/30/18 |                    |  |
| 96   | <b>III</b> |                        | Client       | meeting                                  |               | 1 day    | Wed 10/31/18            | Wed 10/31/18 |                    | Feasibility Analyst,II V&\               |
| 97   | III        | -                      | 577A F       | Project Presentation                     | 1             | 1 day    | Mon 11/5/18             | Mon 11/5/18  |                    | Feasibility Analyst, II V&V              |
| 98   | <b>III</b> | -                      | Condu        | ct code revise with                      | Crucible      | 1 day    | Mon 11/5/18             | Mon 11/5/18  |                    | Feasibility Analyst, II V&V              |
| 99   | <b>III</b> | -9                     | Update       | e use cases                              |               | 2 days   | Thu 11/8/18             | Fri 11/9/18  |                    | II V&V,Project Manager                   |
| 100  |            | -5                     | Update       | e program model                          |               | 2 days   | Thu 11/8/18             | Fri 11/9/18  |                    | II V&V,Project Manager                   |
| 101  | #          | <b>-</b>               | Core C       | apability Demonstr                       | ation         | 1 day    | Mon 11/19/18            | Mon 11/19/18 |                    | Feasibility Analyst,II V&\               |
|      |            |                        |              | Task                                     |               | lı       | nactive Summary         |              | External Tasks     |  |
|      |            |                        |              | Split                                    |               | N        | Manual Task             |              | External Milestone | $\Diamond$                               |
|      |            |                        | c.           | Milestone                                | <b>♦</b>      |          | Ouration-only           |              | Deadline           | •  |
| -    |            | Discovery<br>e 11/13/1 | Tool Softwar | Summary                                  |               | N        | Manual Summary Rollup = |              | Progress           |  |
| Date | . rue      | = 11/13/1              | O            | Project Summary                          |               |          | Manual Summary          |              | Manual Progress    |  |
|      |            |                        |              | Inactive Task                            |               |          | tart-only               |              | J                  |  |
|      |            |                        |              | Inactive Milestone                       |               |          | inish-only              |              |                    |  |

| D   | 0          | Task<br>Mode | Task Name  | Duration | Start        | Finish       | Predecessors | Resource Names              |
|-----|------------|--------------|--|----------|--------------|--------------|--------------|-----------------------------|
| 102 |            | <b>-</b> 5   | Update FED   | 7 days   | Mon 11/19/18 | Sun 11/25/18 |              | II V&V,Project Manager      |
| 103 |            | -5           | Update LCP   | 7 days   | Mon 11/19/18 | Sun 11/25/18 |              | II V&V,Project Manager      |
| 104 |            |              | Update TPC   | 7 days   | Mon 11/19/18 | Sun 11/25/18 |              | II V&V,Project Manager      |
| 105 |            | <b>-</b>     | Update SSAD  | 7 days   | Mon 11/19/18 | Sun 11/25/18 |              | II V&V,Project Manager      |
| 106 |            | <b>-</b>     | Update OCD   | 7 days   | Mon 11/19/18 | Sun 11/25/18 |              | II V&V,Project Manager      |
| 107 |            |              | Implement user manual  | 7 days   | Mon 11/19/18 | Sun 11/25/18 |              | II V&V,Project Manager,     |
| 108 |            |              | TRR presentation   | 1 day    | Mon 11/26/18 | Mon 11/26/18 |              | Feasibility Analyst, II V&\ |
| 109 | 4          | *            | Coding Tasks   | 18 days  | Thu 11/8/18  | Sun 11/25/18 |              |                             |
| 110 |            |              | Update UI  | 9 days   | Sat 11/17/18 | Sun 11/25/18 |              | Prototyper,Software Arc     |
| 111 |            |              | Implement logout flow/token refresh                              | 11 days  | Thu 11/8/18  | Sun 11/18/18 |              | Prototyper                  |
| 112 | <b>=</b>   | -9           | Protect routes according to access privileges for new user roles | 11 days  | Thu 11/8/18  | Sun 11/18/18 |              | Prototyper                  |
| 113 |            | -5           | Refactor PUT route for ideas endpoint                            | 11 days  | Thu 11/8/18  | Sun 11/18/18 |              | Prototyper                  |
| 114 |            | -5           | Debug Heroku deployment  | 11 days  | Thu 11/8/18  | Sun 11/18/18 |              | Prototyper                  |
| 115 | <b>III</b> | -5           | Deploy app to AWS  | 11 days  | Thu 11/8/18  | Sun 11/18/18 |              | Prototyper                  |
| 116 |            | -5           | Refactor config file for production                              | 11 days  | Thu 11/8/18  | Sun 11/18/18 |              | Prototyper                  |
| 117 |            |              | Document API via swagger fields                                  | 11 days  | Thu 11/8/18  | Sun 11/18/18 |              | Prototyper                  |
| 118 | 4          | -5           | Refactor user model to account for<br>new user role types        | 5 days   | Sat 11/10/18 | Wed 11/14/18 |              | Prototyper                  |
| 119 |            | -9           | Refactor auth decorators to account for new user role types      | 5 days   | Sat 11/10/18 | Wed 11/14/18 |              | Prototyper                  |
| 120 |            | -5           | Create goal model  | 5 days   | Sat 11/10/18 | Wed 11/14/18 |              | Prototyper,Software Arc     |
| 121 |            | -            | Create GET/POST routes for goal list                             | 5 days   | Sat 11/10/18 | Wed 11/14/18 |              | Prototyper                  |

External Tasks Task Inactive Summary Split Manual Task External Milestone Duration-only Deadline Milestone Project: Discovery Tool Softwar Summary Manual Summary Rollup Progress Date: Tue 11/13/18 Manual Summary Manual Progress **Project Summary** E Inactive Task Start-only Inactive Milestone Finish-only ]

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| ID  | 0          | Task<br>Mode | Task Name   | Duration | Start        | Finish       | Predecessors | Resource Names S         |
|-----|------------|--------------|---|----------|--------------|--------------|--------------|--------------------------|
| 122 | <b>=</b>   | -5           | Create GET/POST/PUT/DELETE routes for goals route | 5 days   | Sat 11/10/18 | Wed 11/14/18 |              | Prototyper               |
| 123 | -          | -5           | Export publishing calendar to CSV file            | 11 days  | Thu 11/15/18 | Sun 11/25/18 |              | Prototyper               |
| 124 | <b>III</b> | -5           | Integrate frontend UI with backend AI             | 11 days  | Thu 11/15/18 | Sun 11/25/18 |              | Prototyper,Software Arc  |
| 125 | #          | -5           | Test auth endpoints                               | 9 days   | Sat 11/17/18 | Sun 11/25/18 |              | Prototyper,Tester,II V&V |
| 126 | <b>III</b> | -5           | Test users endpoints                              | 9 days   | Sat 11/17/18 | Sun 11/25/18 |              | Prototyper,Tester,II V&V |
| 127 | 1          | -            | Test ideas endpoints                              | 9 days   | Sat 11/17/18 | Sun 11/25/18 |              | Prototyper,Tester,II V&V |
| 128 | 1          | -            | Test goals endpoints                              | 9 days   | Sat 11/17/18 | Sun 11/25/18 |              | Prototyper,Tester,II V&V |
| 129 | <b>III</b> | -5           | Test utilities                                    | 9 days   | Sat 11/17/18 | Sun 11/25/18 |              | Prototyper,Tester,II V&V |































