**Autobot**

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**A brief description of your project (i.e., one paragraph), what you are  
doing, what role the agent and user takes on in a conversation. The URL  
to your team repository should be included here.**

Our project is called Autobot and is essentially an AI that assists a user in picking a vehicle. This is done by asking the user a series of questions which helps Autobot predict what the user will prefer. Autobot is mainly for users who may have limited knowledge of what type of vehicle they are interested in.

https://github.com/hansfuhr/Group25\_As2

**o Your chosen SDLC and rationale for its suitability (max. one paragraph).**

We narrowed our choices down to Waterfall, V-shaped, or Incremental and we felt that that waterfall best fit our needs due to the following reasons. Our group chose waterfall because it has the ability to properly allocate resources. We developers are familiar with the system definitions (python, python IDE). We have no obligation to the customer (Professor) to update them regularly on our progress. Lastly, we have a lot of expendable resources for this project because we have more than enough time and tools to complete project.

**Program Limitations:**

1. Cannot handle incorrect spelling.
2. Cannot handle slang
3. User must write the expected response and not deviate or attempt to hold an actual conversation
4. Does not provide branch path questions.

**PHASE 1: AUTOBOTS AWAKEN**

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| **Task No** | **Task Title** | **Estimated Hours** | **Actual Hours** | **Estimated Start Date** | **Estimated Completed Date** | **Actual Start Date** | **Actual Complete Date** | **Assigned To** | **Performed By** |
| 1.0 | Project Development | 19 | 10 | Jan 20, 2019 | Jan28, 2019 | Jan 20, 2019 | Jan 27, 2019 | Team | Team |
| 1.1 | Concept Exploration | 3 | 3 | Jan 20,2019 | Jan 21, 2019 | January 20, 2019 | January 20, 2019 | Team | Team |
| 1.1.1 | Project Idea Development | 2 | 2 | Jan 20, 2019 | Jan 21, 2019 | Jan 20, 2019 | Jan 20, 2019 | Team | Team |
| 1.1.2 | Project Naming | 1 | 1 | Jan 20, 2019 | Jan 21, 2019 | Jan 20,2019 | Jan 21, 2019 | Team | Team |
| 1.2 | System Exploration | 7 | 2 | Jan 20 |  |  |  | Team | Team |
| 1.2.1 | Choosing IDE and coding language | 5 | 1 | Jan 20, 2019 | Jan 25, 2019 | Jan 22,2019 | Jan 24, 2019 | Team | Team |
| 1.2.2 | Choosing repository and commit method | 2 | 1 | Jan 20, 2019 | Jan 26, 2019 | Jan 22, 2019 | Jan 24, 2019 | Team | Team |
| 1.3 | Requirements | 9 | 5 | Jan 22, 2019 | Jan 28, 2019 | Jan 22, 2019 | Jan 27, 2019 | Team | Team |
| 1.3.1 | Determine requirements of project | 3 | 2 | Jan 22, 2019 | Jan 27, 2019 | Jan 23, 2019 | Jan 27, 2019 | Team | Team |
| 1.3.2 | Determine specific requirements | 3 | 2 | Jan 22, 2019 | Jan 27, 2019 | Jan 23, 2019 | Jan 27, 2019 | Team | Team |
| 1.4 | Design - Choosing Data Structure | 3 | 1 | Jan 23, 2019 | Jan 28, 2019 | Jan 23, 2019 | Jan 27, 2019 | Team | Team |

**PHASE 2: AUTOBOTS INITIATED**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task No** | **Task Title** | **Estimated Hours** | **Actual Hours** | **Estimated Start Date** | **Estimated Completed Date** | **Actual Start Date** | **Actual Complete Date** | **Assigned To** | **Performed By** |
| 2.0 | Project Refinement | 21 | 24 | Jan 25, 2019 | Feb 3, 2019 | Jan25, 2019 | Feb 2, 2019 | Team | Team |
| 2.1 | Implementation | 16 | 22 | Jan 25, 2019 | Feb 1, 2019 | Jan25, 2019 | Feb, 31, 2019 | Hans  Kenny  Jae  Tayler | Hans  Kenny |
| 2.1.1 | Implement text-finding algorithm | 6 | 6 | Jan 25 | Jan 31 | Jan 25, 2019 | Jan 26, 2019 | Hans | Hans  Tayler |
| 2.1.2 | Code Chatbot responses | 6 | 7 | Jan 25 | Jan 31 | Jan26, 2019 | Jan 31, 2019 | Kenny  Jae  Hans | Hans  Kenny |
| 2.1.3 | Determine if all requirements are met | 4 | 5 | Jan 31 | Feb 1 | Jan 31, 2019 | Jan 31, 2019 | Tayler | Hans |
| 2.2 | Installation - Test code on multiple platforms | 3 | 4 | Feb 1 | Feb 2 | Feb 1, 2019 | Feb 1, 2019 | Tayler | Tayler  Hans |
| 2.3 | Operations & Support | 2 | 2 | Feb 2 | Feb 3 | Feb 2, 2019 | Feb 2, 2019 | Pierre | Pierre |

**PHASE 3: AUTOBOTS ROLL OUT**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task No** | **Task Title** | **Estimated Hours** | **Actual Hours** | **Estimated Start Date** | **Estimated Completed Date** | **Actual Start Date** | **Actual Complete Date** | **Assigned To** | **Performed By** |
| 3.0 | Project Finalization | 15 | 11 | Feb 4 | Feb 13 | Feb 3rd | Feb 13 | Team | Team |
| 3.0 | Beta Testing | 5 | 7 | Feb 4 | Feb 5 | Feb 3rd | Feb 7th | Pierre  Hans  Kenny  Jae  Tayler | Pierre  Hans  Kenny  Jae  Tayler |
| 3.1 | Retirement | 5 | 2 | Feb |  |  |  |  |  |
| 3.1.1 | Final Tests | 3 | 1 | Feb 8 | Feb 9 | Feb 9th | Feb 10th | Hans  Kenny | Kenny  Hans |
| 3.1.2 | Backup Software | 2 | 1 | Feb 9 | Feb 10 | Feb 10th | Feb 10th | Kenny | Kenny |
| 3.2 | Presentation |  |  |  |  |  |  |  |  |
| 3.2.1 | Practice Presenting | 3 | 1 | Feb 11 | Feb 13 | Feb 12 | Feb 13 | Pierre  Hans  Kenny  Jae  Tayler | Pierre  Hans  Kenny  Jae  Tayler |
| 3.2.2 | Design possible user scripts | 2 | 1 | Feb 11 | Feb 13 | Feb 13 | Feb 13 | Pierre  Hans  Kenny  Jae  Tayler | Pierre  Hans  Kenny  Jae  Tayler |

**Program Development**

Concept Exploration

* Program naming
* Program idea development

System Exploration

* Determined Pycharm was the best IDE to use
* Determined our method to commit to github. (Branch & Merge)

Requirements

* Determine the basic requirements for programming AI bot
* Determine the grading requirements to associate them with tasks

Design

* Determine the best data structure to use.

**Program Refinement**

Implementation

* Implement text-finding algorithm
* Code Chatbot responses
* Test code functions on multiple OS systems
* Determine if program goals are met with programs functions

Installation

* Test code on multiple platforms

Operations & Support

* Setting a schedule for being available for operations and support during work hours

**Program Finalization**

Maintenance

* Beta Testing

Retirement

* Final Tests
* Storing code in a safe place in case it’s needed again as a backup
* Informing users of retirement

Presentation

* Practice presenting
* Design possible scripts for users

**o A Work Break Down Structure (WBS) showing task assignment to each  
team member, estimated duration of the task in hours (round to nearest  
half hour), and actual duration of task in hours (round to nearest half  
hour). Provide a brief explanation of your WBS.**

We have three phases of our project, each phase has a few main tasks, and most of those main tasks have subtasks.

**o A Gantt chart of your tasks, showing start and end dates for each task,  
and showing dependencies across tasks. Provide a brief explanation of  
your chart.**

See Attached “310 Assignment 2 Gantt chart” (PDF File).

**o Include sample output in your project report. Have one dialogue (at least  
30 turns) that show a good or feasible conversation. Have at least two  
short dialogues that show when your agent is not able to handle the  
conversation properly.**See Attached Document “ChatBot Response Flow Chart”