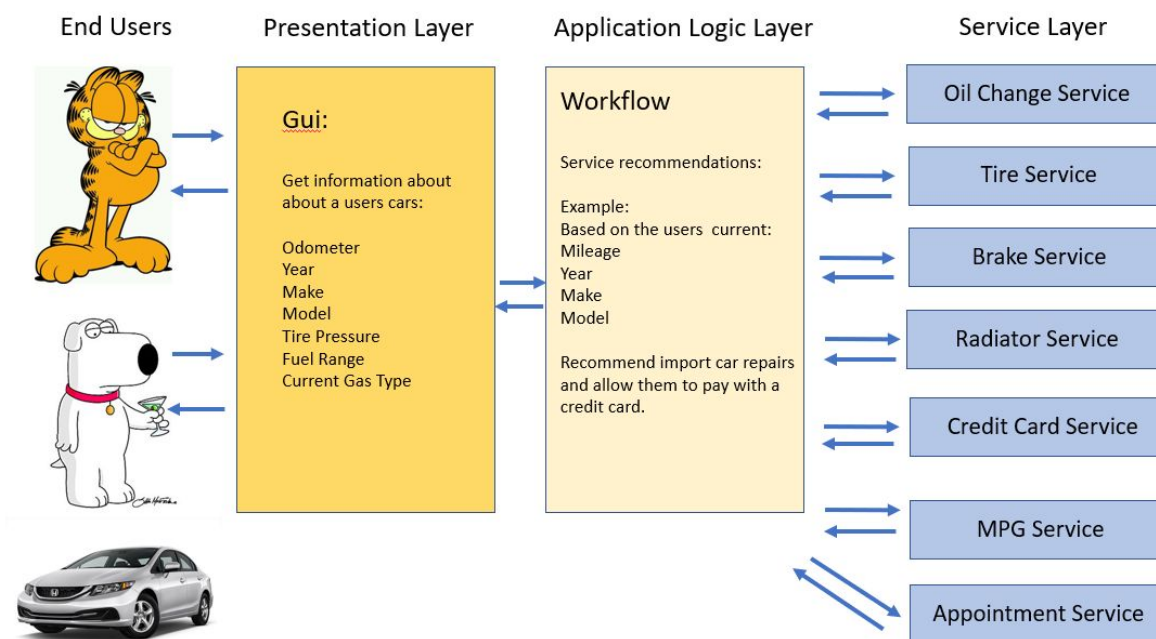**Declaration**

      33.33%, 33.33%, 33.33%

lDescription of the service-oriented service:

      Our team plans to develop a CarShop service-oriented computing system where the users will input their car information (e.g. model, type, etc.) and other values such as mileage, odometer meter, brake fluid, etc. and our service will inform them what they need to get done on their car and how much it will cost them to get it done.

Diagram:

Service Directory: The team plan to complete the following services. Changes can be made later in project 5.
The service directory will be deployed at this address*: 32
Team Name: *Team 445 - AMEX*

Provider name	Service name, with input and output types	TryIt Link	Service description	Planned resources need to implement the service

Ben	**WordFilter** **Input:** A string **Output:** A string with stop words removed	For local: http://localhost:56761/Default For server: TBD	Analyze a string of words and filter out the function words (stop words) such as "a", "an", "in", "on", "the", "is", "are", "am", and any words that are not meaningful to be counted at the top words in search .	Write my own code and use local component to implement the service
Ben	**WsdlAddress** **Input:** A string **Output:** An array of strings with wsdl addresses	For local: http://localhost:56761/Default For server: TBD	Analyze a webpage and return all WSDL addresses in that webpage in an array of strings. The WSDL address can have these formats: xxx.wsdl (e.g. developed Java), or ?wsdl (e.g., .php?wsdl , .svc?wsdl and .asmx?wsdl).	Utilize the Web2String Service provided to retrieve the url as a string then using the string the service can identify the wsdl addresses
Ben	**FillUpGas** **Input:** A float (in gallons) **Output:** A float representing their payment	TBD	Checks the amount of gas needed to fill up the user's car and returns their payment.	Write my own code and use local component to implement the service
Ben	**AirUpTires** **Input:** 4 floats (in psi) **Output:** A float representing their payment	TBD	Checks the amount of air needed to fill up each of the user's tires and returns their payment.	Write my own code and use local component to implement the service

Ben	**CheckBattery** **Input:** A float (in volts) **Output:** A string notifying the user if their battery needs to be changed	TBD	Checks the voltage on the car battery and notifies the user if they need to change their battery.	Write my own code and use local component to implement the service
Ben	**ShopForParts** **Input:** A string array of car parts and an int array of quantity for each part **Output:** A float representing their payment	TBD	A list of car parts will be provided for the user. They will input the quantity of each part they want. Their payment will be returned.	Write my own code and use local component to implement the service
Cole	**Top 10 Words** **Input:** A webpage url in string. **Output:** An array of strings that contains the ten most-frequently occurred words in descending order of their frequencies.	**http://localhost:53802/**	Analyze the webpage at a given url and return the ten most-frequently occurred words in the webpage. Return the words in the descending order of their appearing frequencies.	Utilize the Web2String Service provided to retrieve the url as a string then using the string the service can identify the wsdl addresses
Cole	**Weather Service** **Input:** A string type of a word or words. **Output:** The string of the inflected or derived words replaced by their stem words.	**http://localhost:53802/**	Create a 5-day weather forecast service of zipcode location based on the national weather	Write my own code and use local component to implement the service
Cole	**OilChange** **Input:** An int containing vehicle mileage, a string with vehicle type **Output:** A string recommending the next oil change interval to the	TBD	Identify when a customer should change the oil on their vehicle.	Write my own code and use local component to implement the service

	customer			
Cole	**getCar** **Input:** a string containing the make and model of the desired vehicle **Output:** An array of compatible cars including their prices	**TBD**	Identify a customer's vehicle preferences and recommend a list of compatible vehicles	Write my own code and use local component to implement the service
Cole	**BrakeService** **Input:** An int containing vehicle mileage **Output:** A string recommending the next time the brake service is due	**TBD**	Identify when a customer should change the brakes on their vehicle.	Write my own code and use local component to implement the service
Cole	**MakeAppointment** **Input:** Date format (desired time) and a string containing the desired service **Output:** String (contains appointment information)	**TBD**	Allow a customer to schedule an appointment to service their vehicle	Write my own code and use local component to implement the service
Brian	**Find the Nearest Store** **Input:** two strings (zipcode and store name) **Output:** String message (nearest address of store)	**http://localhost:58075/P3Ass5TryIt.aspx**	Use an existing online service or API to find the provided storeName closest to the zipcode and return the address. If no store is found, return an error message.	Google Maps API to find nearest store based on latitude and longitude. ZipCodeapi.com to provide latitute and longitude based on zip code.
Brian	**Solar Energy Service** **Input:** Latitude and Longitude **Output:** a number reflecting the annual average solar intensity at the location	**http://localhost:58075/P3Ass5TryIt.aspx**	Create a service that returns the annual average sunshine index of a given position (latitude, longitude). This service can be used for deciding if	National Renewable Energy Resource api returns 3 indexes for solar intensity. Provide average

			installing solar energy device is effective at the location.	Annual Directional Normal Irradiance
Brian	**Optional Service - VIN resolution** **Input:** VIN **Output:** Year/Make/Model of vehicle	**TBD**	Return Year, Make and Model of vehicle based on VIN	Use NHTSA vin decoder service
Brian	**Optional Service - Recommend Service** **Input:** float odometer **Output:** string[] Recommended Service	**TBD**	Based on odometer, recommend service for vehicle within specific range of miles (Oil Change, Tune UP, Radiator Flush, etc)	Own code