With today's exponential growth in smart mobile devices, it becomes essential to develop a system that creates awareness and helps people with alcohol abuse problems anywhere they go. Currently there's a Spoken Dialog System for Brief Alcohol Interventions that interacts with users, develops statistics and provides assessment. This system exists as an application for desktop computers.

My goal was to transform this desktop application into a web service, so that multiple clients in different platforms could consume this service and reach more users.

The current system is integrated with multimodal interfaces and embodied conversational agents. These agents can provide a natural interface similar to those found in human interactions.

The user's speech is recognized by the Automatic Speech Recognition engine using context-free grammars, this is then passed to a semantic parser and converted to dialogue acts. The dialogue acts are passed to the state estimator and dialogue is updated based on the policy table. The Natural Language Generation module then passes the response to the Text-To-Speech Engine and it's then played back to the user.

As a web service, these are the functionalities provided:

1. User registration to the system.
2. Validation of User's Login Credentials.
3. Ability to request a forgotten password.
4. Creation a new sessions.
5. Provide interactions for an ongoing session.
6. Receive and analyze user input.
7. Provide questions for the Brief Intervention process.
8. Provide an assessment once the Brief Intervention process is completed.

The server backend for this application done in C# using Visual Studio. Also, it was fully tested and output parameters with their respective types.

**Screenhots**

Windows Communication Foundation Web HTTP Service Help Page

Our mobile alcohol counselor application will help people change their drinking habits.

The counseling sessions are short, well structured, one-on-one, and focused on specific aspects of problematic alcohol related behaviors.

The server backend for this application is a restful Windows Communication Foundation application done in C# using Visual Studio. Also, it was fully tested using Microsoft unit test framework.

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