

READ A BOOK: A SPEECHWEB APPLICATION THAT CAN READ A BOOK

Application Category

Developer Information

Name	Shi, Yue (Sunny)
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Education level when created the application	Ph.D student
Institution	University Of Windsor

Application Information

Application Name	Read A Book
Date created	Mar 2007
Link to the application	http://cs.uwindsor.ca/~speechweb/p_d_speechweb/read_a_book/read_a_book.xml
Link to the code (optional)	http://cs.uwindsor.ca/~speechweb/p_d_speechweb/read_a_book/read_a_book.m
Link to the grammar (optional)	http://cs.uwindsor.ca/~speechweb/p_d_speechweb/read_a_book/read_a_book.jsgf
What is the application about?	“Read A Book” can read a story book “Sleeping Beauty” to user in various ways. The user can ask to read by page, chapter, or some specified pages, chapters. Also, it’s possible that the application can search for some interesting words by user’s demand and read the pages including those words.
Why was the application created?	“Read A Book” was created to demonstrate Q/A type of SpeechWeb applications by getting the information from a local database.
How was the application created?	“Read A Book” was created by using the manual on how to create SpeechWeb applications available on the SpeechWeb developers’ webpage.
What is the programming language used?	Miranda, a functional programming language is used to write the interpreter which takes text as input (query) and returns text as output (answer). A grammar file, which is written in JSGF (Java Speech Grammar Format) to define the language within the domain of the speech application. An XML file, a copy of the X+V web browser.
How does the application work?	User speaks out commands to the application in natural English, the application will return the result to the user according to his/her commands. For example, user says “read page ten”, the application will read out page ten of the book and let the user know when it’s end.
What is good about the application?	“Read A Book” is a user-friendly application with clear guidance and interactive information for users.
Problems faced while creating the application and solutions	The interpreter needs to be written to accept various commands and provide a user-friendly interface for users. Also, the performance of grammar needs to be considered carefully.
How can other developers create a similar application?	Developers can create a similar application by looking up the code and learning the techniques used to parse the questions and returning the appropriate answers. Developers can also use the manuals on the SpeechWeb developers’ webpage.
Other comments	The developers’ webpage is at: http://cs.uwindsor.ca/~speechweb/developers.html Suggestions and questions can be forwarded to my email