

Buy-In for Earth IBM Watson Challenge

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[Baltimore in the Future Tense](#)

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Draft 8, Final Entry Revised
File: BFTWatsonmmdyy.docx



One author

Purpose:

This paper develops an entry for the hack contest:

IBM Watson Challenge

http://watson.devpost.com/?utm_source=Devpost+Weekly+Newsletter&utm_campaign=44bff5d17f-Hacker_1_7_16&utm_medium=email&utm_term=0_294421ffd0-44bff5d17f-225477453

The idea is to very quickly (due February 12, 2016) write something exciting that can be done with API's developed with the big IBM AI Watson.

Team: (4 maximum)

1. Tom Riley, Big-Picture Technical Designer, TomRiley@WoodwareDesigns.com
2. Kent McCullough, Space Technician, kent.r.mccullough@nasa.gov
3. Farhan Khar, Coder, farhan3322@yahoo.com, affidavithacked1@gmail.com

Three Forms

Three versions of this entry are provided below: Focus, Mid-Length, Long.

Buy-In for Earth
or
Disempowering ISIS

Focus:

(47 words < 100 words)

“Buy-In for Earth” is a Watson App that supports buy-in for a massive and sustained effort on the great problems of the 21st Century and thereby supports building a sustainable Earth. It uses the latest information on how the human brain works and combines that with a powerful machine intelligence.

Whole Story for Entry:

(Mid-length -- The contest entry form requires a medium length discussion.)

Buy-In For Earth

We face a number of great problems in the 21st Century (terrorism, Global Warming, etc.). These can frighten people afflicting them with inaction. This does not have to be.

Throughout our history the way human beings have addressed major problems is to get large numbers of people in effective action and keep them in action. Now there is plenty of good science available on how to get people to buy into action. There is even some new relevant science from studies of how our brains work. Can we turn this new science into an Watson App?

You cannot take on a big problem in one gulp. You need to break it down into manageable pieces. For this contest we can define a specific tool we need, a buy-in generator, because buy-in is the key mental component of enrollment.

Our Watson App, BuyInEarth, is then a computer based application designed to generate buy-in in the human brain specifically for taking on the great problems we now face and working toward a sustainable Earth.

The key element of buy-in is to invite people to envision themselves succeeding with the idea. The current images we are presenting to our youth are most a disaster. We now have generated a high level of buy-in for stopping a zombie apocalypse, but not for addressing Global Warming. There is a small amount of good images of success on real problems out on the Web. We badly need an App to find them.

The IBM Watson challenge opens up a possibility of building a rapid prototype App and testing if software can generate buy-in in human beings to build a sustainable Earth. I have many years work on this problem under my belt and we now have a Web site with a Program Design Document, runnable prototype, and short video:

Buy-In for Earth Web Site

[link](<http://bigmoondig.com/Essays/BuyInEarth.html>)

It will take a while to test and refine this App, "BuyInEarth".

Enjoy,

Tom Riley

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#BuyInEarth

Buy-In for Earth
or
Disempowering ISIS

(Long first draft – This long form was used to develop the idea.)

Outline:

- I. Disempowering Terrorism**
- II. Enrollment as Buy-In**
- III. Code Development**

I. Disempowering Terrorism

Project History:

We do not always get to set the priority for our major projects. We must often look to our national leadership for that. After the Paris attacks, President Obama spoke on television and laid out a major effort to respond. We listened to our leader and got into action.

I am a technical designer and futurist specializing in the big-picture and I work on how to use new science to directly address the [problems of the 21st Century](#)¹. I soon realized that the process that I had been working on to revitalize space exploration was well suited to the specific task of disempowering ISIS. Although not at first obvious, it is a good fit.

This non-violent approach is not fast and it is not sure, but in the end it is powerful. This approach will take the latest science and it will take the efforts of many teams of people organized over the Internet. It may take several years effort to even find out if it will work, so it is time to start.

The Watson materials will cut down that development time by powerfully organizing the data and helping people to buy into the needed work. This is a great match particularly for a rapid prototype.



Blue Marble Earth, NASA

Top of the Design:

This type of design work starts the effort with a need at the bottom, but soon jumps to the big-picture at the top. The work then iterates between top and bottom until you meet yourself in the middle.

The top of this design is the Blue Marble Earth in the 21st Century. It is the whole Earth because the great problems we now face (Terrorism, Global Warming, etc.) are global. It is the 21st Century because that is our time and the 21st Century is like no other. We must deal with the Earth in the 21st Century on its own terms. And, it is oh, so easy, to forget what century we are in and pretend we are in a simpler time and place.

Our Approach:

Now jumping down to look directly at the problem, we see that the key to ISIS's power is their recruiting. If we can disable their recruiting, we can disempower the whole movement.

The talking heads on TV seem to be totally mystified on ISIS's recruiting success, but this simply shows their complete lack of research into how recruiting works. There is an enormous literature available on recruiting. It is available under many topics from self-improvement, to leadership, to team building, to even sales. There is even substantial new science available on how recruiting works within the human brain. It is that new science we propose to exploit here.

Technical people call the key recruiting process "Buy-In", as in "He really bought into the project". Fortunately buy-in is now well studied and a step-by-step procedure is available.

The key step in buy-in is when the person envisions themselves succeeding with the idea. This is an out-and-out daydream. The person must clearly see themselves in their mind's eye succeeding with the project. This daydream is often short but is quite memorable and very common. Most people can think of times in their life when they bought in. Many people also go through this process with their own ideas and commonly generate self-buy-in.

Existing Actions:

There are people working this problem, as was shown on the PBS/News Hour, <http://www.pbs.org/newshour/bb/recruiting-college-students-to-fight-extremists-online/>.

These actions however tend to take on the propaganda head-on. Our approach is to instead undercut the underlying social foundation without direct confrontation.

Action for Moderate Muslims:

To be effective specifically against extremist Muslim groups will require extensive input from the moderate Muslim community for both the first prototype, the stories, and the second prototype the BuyInEarth tool. This will require input from the high tech members of this community and is an example of actions that they can take.

Dark Side of our effort

Because we are proposing to intentionally use powerful brain modules that have been historically used by anti-social movements, we must be careful not to start such a movement ourselves. A movement for sustainability, if it becomes powerful itself, could easily morph into an anti-social and even murderous religious style movement.

Take care.

The Void:

If we now look at the images of success we are actually providing for our young people we find a great void.

Most of the available images are about zombie apocalypse, or robots running amok. Images of believable people in effective action to address the real problems of the 21st Century are few and far between.

It is not that the 21st Century is not challenging. It is the most challenging century ever. The 21st Century is many things but it is not boring. The problem is simply that we are not depicting either the real challenges or real solutions.

This leaves a great void where even the murderous vision of ISIS can take root.

Our task then is to fill that void. We must fill it with examples and stories of people that real people can identify with, stories of people who are in action on the great problems of the 21st Century.

In our first prototype, we wrote a few such short stories, but we need many more examples of real people in real action. For our second prototype, "Buy-In for Earth", Watson can definitely help us search out powerful examples. We can start with our few stories and many TED talks, but then need to expand our field.

If we fill that vision of success void then we will disempower ISIS. This we can do. As a non-violent effort we will not confront them directly, in fact, this is the last time we need to even mention ISIS by name. Our process will slowly render them powerless by ham-stringing their recruitment and they will then fade from existence.

II. Enrollment as Buy-In

Tools Needed:

You cannot take on a big project in one gulp. You need to break it down into manageable pieces. For this contest we can define a specific tool we need, a buy-in generator, because buy-in is the key mental component of enrollment.

Our Watson App, BuyInEarth, is then a computer based application designed to generate buy-in in the human brain specifically for taking on the great problems we now face and working toward a sustainable Earth.

Buy-In Features:

[Buy-In](#)³ is a module in the human brain that involves the connection of the visual and language centers. It evolved to help people work in small social groups with everything from organizing a hunt to building a village long house. It is old and it is very useful. It is a foundation for all civilization but it does have limitations and we need to recognize these limitations in the design of our app. We can now build an app that invites people to buy into Earth by getting into action on the great problems of the 21st Century.

When people buy into a project they get in action and they stay in action. This is how we built everything from the Great Pyramids, through the Gothic Cathedrals, to Apollo to the Moon. It is how the human race works together to do big things.

Buy-In is by invitation only. If you try to force someone to buy into your idea, it very quickly becomes a hard sell and usually makes the person angry. For this reason you cannot scare people into buying in and this is a serious mistake that the environmental movement often makes. A well designed buy-in presentation can get 5% of the audience into initial action. That is all it takes to generate a great movement.

You have only one vision center in your brain. It is at the back of your head and it is needed both for analyzing what you see and for daydreaming. Have you ever noticed that you are not paying any attention to what you are looking at when you are daydreaming? If you need the person to daydream about their success with your idea, then you must deliver the final element of your message with language while leaving the visual field boring for the moment.

If buy-in has occurred, the person will first be moved to language. It could be only a word or phrase, like "Cool", but it will be language and we need to accommodate it. On the Internet this can be accommodated with a blog or other interactive media.

After language, the person will need an opportunity to be in action. Again, on the Internet this can be accommodated with links to appropriate Web sites.

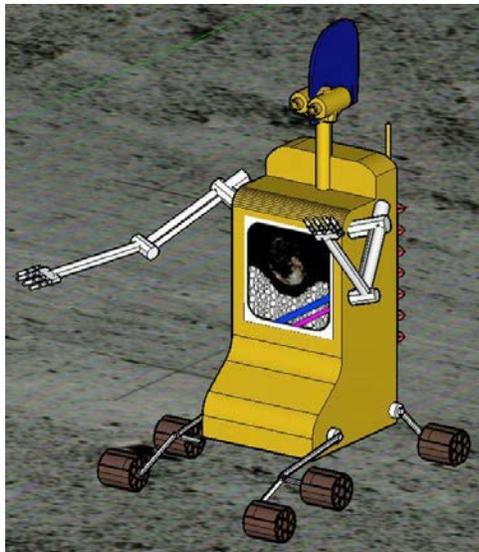
These features are easily built into our new Watson app.

Existing Watson API's & App's:

We have started a rapid prototype, a [group of short stories](#)², but progress is slow. These are all set in the near future and feature believable characters in prolonged action on such problems as sea level rise, and the human/machine symbiosis.

The Watson Speech to Speech API is a god-send for reaching out with our meager prototype materials to a larger audience.

The Watson Trends API will be a very useful way to find out which of the great problems of the 21st Century are the most popular. It will provide real data on which ones people are frightened of and, more importantly, which ones they are most likely to work on.



Virtual Digger03 from "The Big Moon Dig", Tom Riley

The Watson Rover App is also a great help in that several of our [existing stories](#)² are about the interface between people and lunar rovers. Applying this app provides a much better understanding of the current state of this art.

General Deception of Custom App:

That said we do need to write a custom Watson app using two or more Watson API's (Application Program Interface) (see below). Our app, BuyInEarth, will invite people to buy into efforts to address the great problems of the 21st Century, "Buy-In for Earth". It will utilize

current knowledge of how buy-in works. It will aid people to envision themselves succeeding in the face of these far-reaching problems.

The App will consist of five sections:

1. Input:

The user will provide a User name and then input a problem. A problem list is offered to make the question clear.

1. Global Warming
2. Sea level rise
3. Population peaking
4. Population in the developing world
5. Immigration
6. Fresh water depletion
7. Fish stock depletion
8. Arable land depletion
9. Achieving a sustainable Earth
10. Human/Machine symbiosis (AI)
11. Other problems identified by Watson Trends

In short, this list will include all the great problems of the 21st Century.

Or, the user can request the Watson Trends API to provide a list of the most popular great problems.

In the end the user will choose one great problem.

2. Custom Search:

Our App then runs a custom search to find works of fiction, film reviews, TV reviews, Internet content, TED talks, and computer games that meet a very specific requirement. All these works will refer to real human beings or believable fictional characters who are in sustained action to address the specific problem selected. Our user will then be invited to strongly envision him or herself succeeding with the idea.

Our App will find our [prototype stories](#)². These stories we can use to test our app.

Furthermore, the search will exclude zombies, robots run amuck, post apocalypse settings, wars against one bad guy, and comic book plots. There will be no invasions from outer space. There will be no hate plots or xenophobia. Our prototype stories must ring true.

3. Invitation to Buy-in:

Invite the user to buy-into action to save the Earth. This invitation must be in language.

4. Language Response:

Action will start with a link to a block to allow a language response. Our prototype can start by providing a link to our existing blog but other social media will be added later. This step will provide feedback on the number of people who buy into ideas from our app.

5. Actions:

Our app will also return a list of possible follow up actions for the user. The response will include URL links to reputable sites on the Internet that support action on the specific problem. The app will also provide a list of technical and scientific papers and MOOC classes for further reading and study.

Conclusion:

The way human beings have accomplished major projects from the Great Pyramids, through the Gothic Cathedrals, to Apollo to the Moon, has always been to get a large number of people in effective action for a long period of time. Today we have problems of a larger scale than ever before and we must answer them with great projects. Fortunately we also have communications world-wide and new knowledge of how our own brains work. We can now build the new tools we need to generate buy-in for a sustainable Earth.

The Watson environment can be a powerful element in this effort.

References:

1. Baltimore in the Future Tense (Internet)
<http://bigmoondig.com/Essays/BaltFuture.html>
 2. Prototype Stories (Internet)
<http://bigmoondig.com/Stories/BMDStories.html>
 3. Tom Riley, "Brain Apps" (Internet)
<http://bigmoondig.com/Essays/BrainApp.pdf>
 4. Tom Riley, "Baltimore in the Future Tense, References" (internet)
<http://bigmoondig.com/Essays/BFTRefer.pdf>
 5. Big Moon Dig Blog (internet)
<http://bigmoondig.info/Blog/>
 6. Project References (Internet)
<http://bigmoondig.com/Essays/BFTRefer.pdf>
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Available Graphic, Logo 300x300

III. Code Development:

General Coding Notes:

Long ago I wrote code. In fact, code I wrote set the record for the most repeat flights in the Space Shuttle bay for a scientific instrument at eight, all successful. (Does anybody even remember Forth?) But all that now seems like it took place in the early Pleistocene.

The problem is that I have not coded in a long time. Clearly I needed to find coding members for my team and the Devpost team building feature can through.

Our problem then is to code a prototype Watson App to test if Buy-in for addressing the great problems of the 21st Century can be generated in people by software.

Buy-in, Formal Steps:

The skill of effectively generating buy-in is now made much easier by the availability of a step-by-step process, a formal, teachable version of buy-in. Here are the specific steps in the process for inviting people to buy into your idea, as the steps might occur at a project kickoff meeting:

1. *Paying attention* -- When people arrive at a presentation, they are often distracted by things that happened to them just getting there: the traffic is horrible; the weather is worse, here is my excuse for being late.

None of this is really important but we do need to get it out of the way.

The best way to do this is through language. Get people to talk among themselves before the presentation starts. Work the crowd a little

Do not bother to take notes on what is said; just get them to say anything about whatever is in the way. It doesn't have to make much sense. Like excuses, once spoken the distractive stuff will fade into the background.

2. *My why* – Tell the audience why you are involved in this work. Keep it short. If they identify with your personal why they are much more likely to listen.
3. *This is important to you* -- Get the audience to start thinking about how your idea could make them successful in their lives. This starts the Vision of Success process. Be sure they see the presentation as unusual enough to be interesting, but not so unusual as to be dangerous. In this process, connect personally with the audience.

Often a comment on your personal commitment will help. Make sure they know that you are inviting them to contribute to the project and become part of it. State that you are inviting them to join in such a way that they will not hear the presentation as a hard sell.

4. *Present the idea* -- Here you can use any form of media that the audience will find interesting. These days everything is flashy pictures, which is okay, but they won't do your job for you. The presentation must be inspiring and show your personal commitment. Here is where the skill of being a presenter and, to some extent the skill of generating inspiration, come to the fore. They are crafts to be learned and practiced. Examples of how the idea has affected your personal life are usually accepted as important human-to-human communications, but they must be sincere. Over-rehearsed testimonials will put an audience off. Canned jokes and cynical quips can definitely break the development of the idea. If you sound like a TV pitchman or a preacher, then you will be heard as such.

The presentation must have content. It must have information of real value to the audience. Whiz-bang and flash are not enough. Lack of real content was one of the major problems in the dot-com bubble boom and bust. In that boom, technical people demonstrated simultaneously that you can build Visions of Success on pure whiz-bang and that a boom built on this foundation of sand will not last.

The presentation must have integrity. Human beings have a specific brain module for spotting phonies. This module is hardwired to an anxiety center. Done poorly, a formal buy-in presentation comes across as a hidden hard sell, and will thus greatly upsetting people. Most of our integrity problems in come from saying one thing and doing another. It is very important to be up front about what you are doing and to hide nothing.

Early on, you need to find a good way to say that you are intentionally trying to get people into action on the proposed, exceptional idea.

5. Invitation to Buy-in -- Don't use fancy graphics here. You can leave something on the screen, but it must not be too engrossing, and it certainly must not be flashing or moving. The next step must be done in language only. It can be written in text, but it is most often spoken. You must assist the people of the audience in envisioning themselves succeeding with your idea.

You should then see at least a few eyes light up. Make it perfectly clear that it is completely all right if they choose not to buy into your idea, but invite them to do so just the same. They must have free choice or they will later angrily reject the idea.

6. *Opportunity for language* -- Give everyone in the audience a chance to be moved to language. This usually means at least some time for questions and answers. But if the audience is large, you may need to get them talking among themselves for five minutes or send them to dinner in groups.

With young people, the response could be as simple as the word "cool."

7. *Short-term actions* -- Make sure that there is some opportunity for short-term action, something they can do this week without committing to changing their lives. Reference lists to take home and Web sites to surf are great here.

It is not necessary that they be able to contact you personally, but a contact possibility with an appropriate organization or discussion group will be most helpful. If they have bought in, they need to have a clear next step to take.

8. *Long-term action* -- Make doubly sure there is an opportunity for long-term action available. They need to know how they can make a real contribution to the project. These are the actions that get the job done.
9. *Vision of Success in memory* -- As the project progresses, you should suggest that they recall their vision of success from time to time. This can take the form of describing your personal practices in this area.

Note that this process is for people-to-people. We need to redesign it to run computer-to-people.

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Farhan Khan



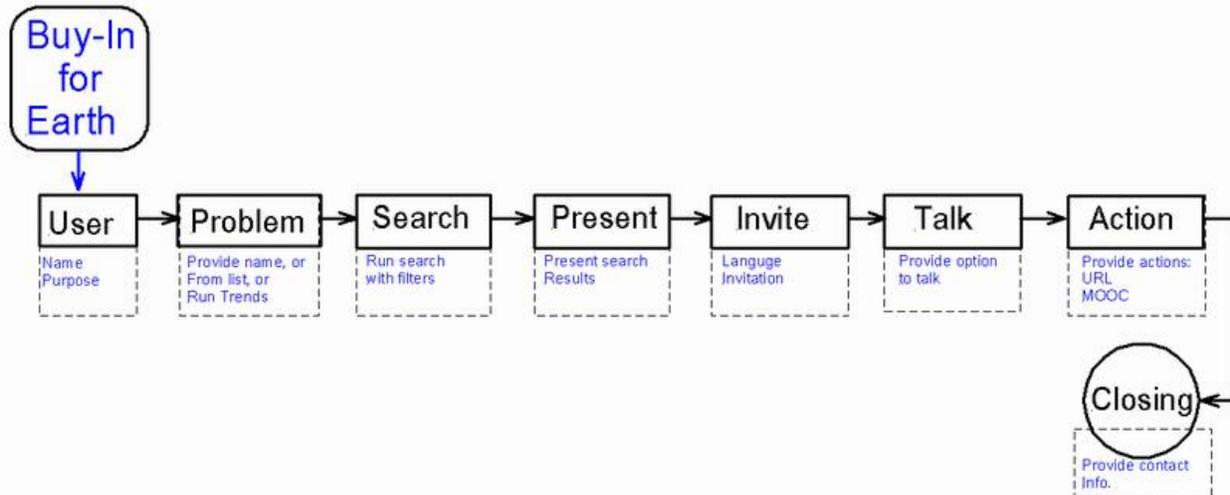
Farhan Team

Code Outline:

Our task then is to use one IBM Watson API (Application Program Interface) (see below) to run a computer-friendly version of this buy-in process. It features an advanced search API to find specific examples of people in action.

The Code can be developed in the following linear sections and each step includes lines of suggested text to introduce that action:

Minimum Entry:



Minimum:

1. **Set up** – Sets up this app and displays a graphic. Displays a short purpose statement.

Suggested Graphic:



Suggested Text:

“The 21st Century is not a century for wimps!”
 “Afraid of the big problems we all face?”
 “Find who is in action and get in action yourself.”
 “Only your action will alleviate this fear.”
 “Afraid of the Future? Find action, take action!”

2. **Get Problem** – Asks for a User Name to use. Asks for the problem. Either: (1) takes a specific problem, (2) choice from a list, or (3) run a Watson Trend API (?) on most commonly discussed great problems of the 21st Century.

Suggested Text:

“There are many great problems in the 21st Century like Global warming.”
 “What problem bothers you the most?”
 “Here’s a list:”
 “Would you like to know what problems are trending right now?”

3. **Run main Search** – Runs a detailed API Retrieve and Rank API (?) on the great problem with filters. First looks specifically for examples of people in action on the specified great problem. Filters out zombie apocalypse, etc.
4. **People offered** – Offers links to examples of real people in action, many will be TED's. Hopefully will pick up our short stories.

Suggested Text:

"You are not alone."

"Here are some of the people in action and actions being taken:"

5. **Offer Invitation** – Present invitation to action in language:

Suggested Text:

"Are you ready to take on real 21st Century problems like these people have?"

"Effective action is possible only if you put yourself in action."

"Only we can do this!"

"Your action is one key to solving these great problems."

"Join people in action."

"Be a person in action yourself!"

6. **Talk Possible** – Offers link to Blog incase the person is moved to language. The number of people moved to language is our primary data point.

Suggested Text:

"Would you like to talk about your possible actions with other people?"

"Do you want to talk?"

"We can talk this through at our Blog, <http://bigmoondig.info/Blog/>."

7. **Closing** – Saves as needed to support learning feature for User Name. Gives project URL. Provides comments on team, purpose, and URL link.

Suggested Text:

"This is a Beta test of Buy-In on the Web by The Big Moon Dig, <http://bigmoondig.com/BigMoonDig.html>."

"You might like our short stories of people in action: <http://bigmoondig.com/Stories/BMDStories.html>."

"You may react the designer at: TomRiley@WoodwareDesigns.com"

"Thanks for your time and attention; Tom Riley, Farhan Khar."

Challenge Extra:

The use of a third API call is needed to achieve the best contest score.

Future Expansion:

In the future we may wish to expand the search into specific categories:

1. *Fiction Offered* – Reruns Watson API if necessary to get fictional people in action. Includes reviews of books and movies. Hopefully will pick up our first prototype.
2. *Science Offered* – Reruns Watson API if necessary to get science references about the specific great problem. Includes both general audience science articles and abstracts of scientific papers.
3. *Courses Offered* – Reruns Watson API if necessary to get MOOC courses on addressing great problem specified.

Many of these API's have learning capabilities that need to be utilized based on the specific User Name provided.

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BuyInEarth App Development:

Prototype App Name: BuyInEarth

BuyInEarth Project on Devpost

<http://devpost.com/software/buyinfoearth>

Buy-In for Earth Project Web page:

<http://bigmoondig.com/Essays/BuyInEarth.html>

Video Title: Buy-In for Earth

YouTube: <https://youtu.be/NSoGaGOZsmU>

Github Repository:

Final: <https://github.com/Frrank1/buy>

Buy-In for Earth is a web application

Final: <http://buye.cloudapp.net/>

The Big Moon Dig blog is certainly available for use in this prototype:

<http://bigmoondig.info/Blog/>

Support URL's:

The following Web sites support developing a Watson App:

IBM Watson Challenge

[http://watson.devpost.com/?utm_source=Devpost+Weekly+Newsletter&utm_campaign=44bff5d17f-Hacker 1 7 16&utm_medium=email&utm_term=0_294421ffd0-44bff5d17f-225477453](http://watson.devpost.com/?utm_source=Devpost+Weekly+Newsletter&utm_campaign=44bff5d17f-Hacker+1+7+16&utm_medium=email&utm_term=0_294421ffd0-44bff5d17f-225477453)

Devpost Forum Topics

http://watson.devpost.com/forum_topics

Devpost IBM Challenge Community Blog

http://watson.devpost.com/forum_topics

IBM Watson API (Application Program Interface) Used:

Concept Insights, Natural Language Classifier

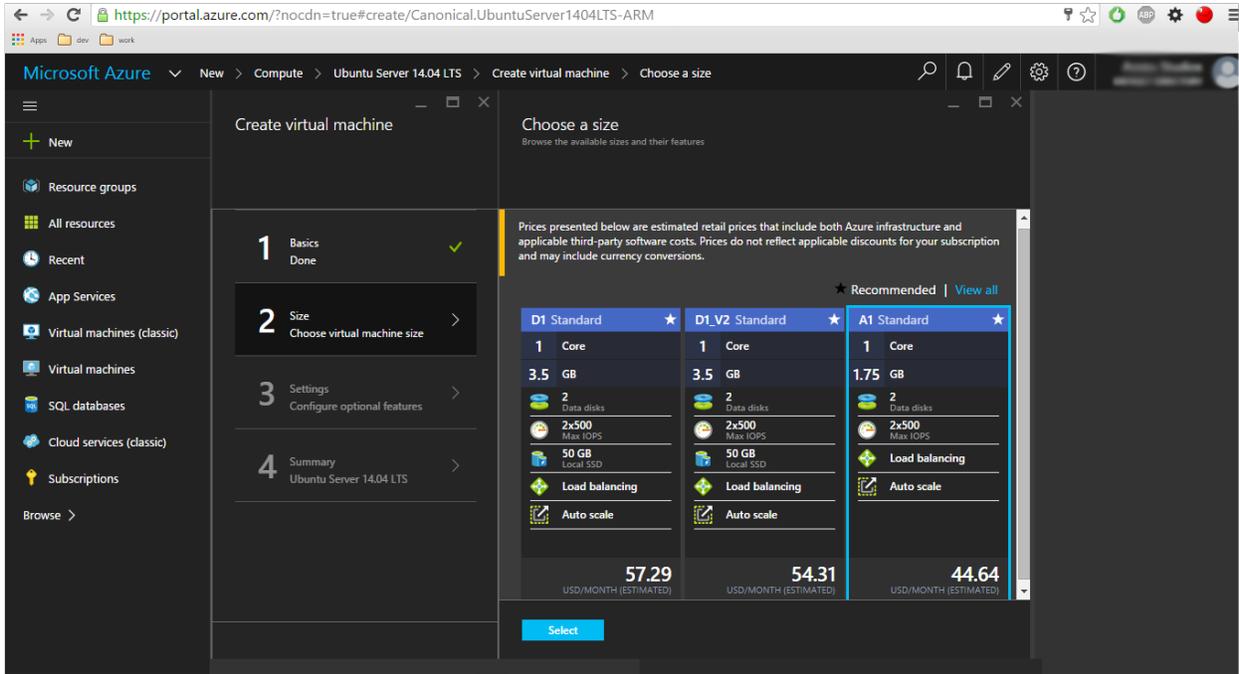
Possibly: Language Translation service

Build with:

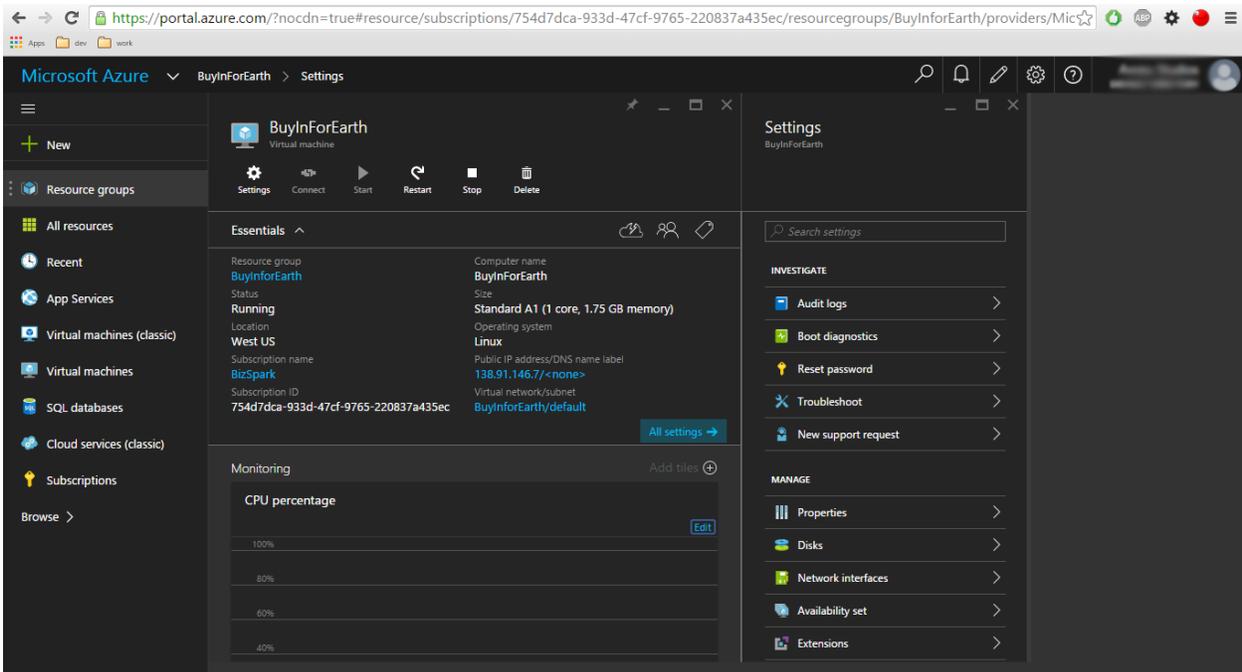
Languages: (For web application) Ruby On Rails, Bootstrap, sass(css) as a database Sqlite3, On the mobile side for android java, ruby gems, xml .

Editors: Sublime, Instellij idea, and android studio.

Screen Shots:



Screen Shot 01



Screen Shot 02

IBM Watson API (Application Program Interface):

The following is an index of Watson modules (they once were called subroutines). Some of them look like they could be used for our application:

IBM Watson, Concept Incite Service, API Overview:

<http://www.ibm.com/smarterplanet/us/en/ibmwatson/developercloud/doc/>

IBM Watson, Concept Incite Explorer – API Index:

https://watson-api-explorer.mybluemix.net/apis/concept-insights-v2?cm_mc_uid=12448266197914534004094&cm_mc_sid_50200000=1453721995

Bluemix Development System:

Setting up this system has proved to be very difficult:

IBM Bluemix Development Site

<https://hub.jazz.net/docs>

Tutorials

<https://hub.jazz.net/tutorials/>

YouTube Beginning Bluemix (6 minutes)

<https://www.youtube.com/watch?v=OD1NP-Yk2BI>

YouTube Long Bluemix (58 minutes)

https://www.youtube.com/watch?v=10GV_MfasW4

Developing a Watson application in Java

http://www.ibm.com/smarterplanet/us/en/ibmwatson/developercloud/doc/getting_started/gs-full-java.shtml

IBM Bluemix Direct

<https://console.ng.bluemix.net/?direct=classic>

Second try:

IBM Bluemix DevOps Services

<https://hub.jazz.net/project/tomriley/BuyInforEarth/overview>

Private GIT URL

<https://hub.jazz.net/git/tomriley/BuyInforEarth>

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Startup problem:

I think what I have is a Lincoln's Ax problem:

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Story:

I was walking through a swap meet and saw an old ax for sale at an adsorbent price. I asked about it. The old farmer told me that it was Lincoln's ax, the very one he used to split logs into rails. He admitted that the handle had been replace four times and the head twice, but he insisted that it was still Lincoln's ax and the prices was therefore reasonable.

I walked on.

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Yes, I once wrote code and I even my minor record still stands, but every part of the development process has be upgraded four times since then. Now there are a hundred little got-ya's hidden in the process any one of which can trip me up.

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