

# EFFECTIVE ENIGMA

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# THE WHAT!?

- A **Minimalist** Chat Based Adventure RPG powered by Watson Conversation API for Android and Web
- Web UI built with ELM built on top Node.js which uses Loopback to store/retrieve game data in the IBM NoSQL Cloudant Database.
- Middleware to boot

# DIFFICULTIES

- Webpack Issues
- Android Issues
- Elm took time to learn but was a very rewarding learning experience
  - Strongly Typed
  - Compiler is smarter than us
  - If it compiles it probably works
  - Kind of like React Flux
  - Separation of effects and pure code

# CLOUDANT DB

 Secure | <https://effective-enigma.mybluemix.net/explorer/#/>

## LoopBack API Explorer

Token Not Set

Set Access Token

### loopback-starter

Equipment

Show/Hide

List Operations

Expand Operations

Friends

Show/Hide

List Operations

Expand Operations

game\_state

Show/Hide

List Operations

Expand Operations

Inventory

Show/Hide

List Operations

Expand Operations

Note

Show/Hide

List Operations

Expand Operations

User

Show/Hide

List Operations

Expand Operations

[ BASE URL: /api , API VERSION: 1.0.0 ]

# COMMAND LINE CLIENT

```
$ node testChatOriginal.js
Hello. Welcome to the Adventure World. I am Watson and will assist you in your j
ourney as you explore this exciting world. If you need help just ask for it.
>> Hello
Hi I am Watson, here to assist in your grand adventure. Just "Help" if you need
it.
>> I Need HELP!!
Oh looks like you are stuck. Here let me help you! You can check the bag, move a
round, leave this place, use an item or just have conversation with me.
>> Where are we?
We are at the Town Square
>> Let me use the Health Potion
Health has been restored to 100%. Aah. That must be refreshing
>> Let's go North
To the Cold North
>> |
```

# WEB UI WE ENDED UP BUT DON'T DESERVE

← → ↻


Secure | <https://effective-enigma.mybluemix.net/index.html>

Interview the Prime Minister

Watson Chat Bot

Type a question and press Ask...

ASK!



Try asking a question starting with Who, What, Where, How or When.

# TYPE THEORYYYYYYYYYYYYYYY

So after spending a lot of time trying to get Elm to work we came up with an idea.

# IDEA - STRONGLY/STATIC TYPED LOOPBACK API

Create a statically typed interface for isomorphic applications

Many good languages compile to javascript. And many of these have some sort of type system. Since the metadata for models is available for loopback api why not have compiler check their usage in front end code.

For example maybe the command line tool could enable users to define interface generators for Typescript, Elm, Fable ..etc.