

2 Alchemy Services are implemented:

1) Alchemy News API: this service can be accessed by our own service

```
@Path("/news")
public class News {

    @GET
    @Path("/{category}")
    public Response getMsg(@PathParam("category") String category) throws IOException, Exception {
        StringBuilder result = new StringBuilder();
        String urlToRead = "https://gateway-a.watsonplatform.net/calls/data/GetNews"
            + "?apikey=0841f9bb26eac105e6a99b5c8afb4f223e2f47b8&"
            + "outputMode=json&start=now-1d&end=now&count=10&"
            + "q.enriched.url.enrichedTitle.taxonomy.taxonomy_1=label="+category+"&,"
            + "score=%3E0.4|&return=enriched.url.url,enriched.url.title,enriched.url.text";

        System.out.println(urlToRead);
        URL url = new URL(urlToRead);
        HttpURLConnection conn = (HttpURLConnection) url.openConnection();
        conn.setRequestMethod("GET");
        BufferedReader rd = new BufferedReader(new InputStreamReader(conn.getInputStream()));
        String line;
        while ((line = rd.readLine()) != null) {
            result.append(line);
        }
        JSONObject json = (JSONObject) new JSONParser().parse(result.toString());
        JSONObject resultjson = (JSONObject) json.get("result");
        org.json.simple.JSONArray resultlist = (org.json.simple.JSONArray) resultjson.get("docs");
        JSONArray outputArray = new JSONArray();
        for (int i = 0; i < resultlist.size(); i++) {
            JSONObject templ = (JSONObject) resultlist.get(i);
            JSONObject source = (JSONObject) templ.get("source");
            JSONObject enriched = (JSONObject) source.get("enriched");
        }
    }
}
```

2) Alchemy Sentiment Analysis:

```
@Path("/sentiment")
public class sentiment {

    @GET
    @Path("/{input}")
    public Response getMsg(@PathParam("input") String input) throws IOException, Exception {
        StringBuilder result = new StringBuilder();
        String urlToRead = "http://gateway-a.watsonplatform.net/calls/text/TextGetTextSentiment"
            + "?apikey=0841f9bb26eac105e6a99b5c8afb4f223e2f47b8&outputMode=json&text="+URLEncoder.encode(input, "UTF-8");

        System.out.println(urlToRead);
        URL url = new URL(urlToRead);
        HttpURLConnection conn = (HttpURLConnection) url.openConnection();
        conn.setRequestMethod("GET");
        BufferedReader rd = new BufferedReader(new InputStreamReader(conn.getInputStream()));
        String line;
        while ((line = rd.readLine()) != null) {
            result.append(line);
        }
        JSONObject json = (JSONObject) new JSONParser().parse(result.toString());
        JSONObject docSentiment = (JSONObject) json.get("docSentiment");
        rd.close();
        return Response.status(200).entity(docSentiment.toString()).build();
    }
}
```

Both of them are consumed in Ionic Client.

News

Enter your desired news topic

medical

Get news

The government is retiring its last medi...

<http://daily.me.com/story/2015111900004107>

NIH ends support of chimp research, re...

<http://arstechnica.com/science/2015/11/nih-ends-support-of-chimp-research-retires-last-animals/>

James Sandner: Bee should do better re...

<http://www.modbee.com/opinion/letters-to-the-editor/article45571947.html>

```
$scope.getNews = function (query) {  
    $http({  
        method: 'GET',  
        url: 'http://localhost:8080/Lab10Ase_pk/rest/news/' + query,  
        contentType: "application/json"  
    }).success(function (data) {  
  
        $scope.news = data.results;  
        alert();  
  
    })  
  
};
```

User can select any category and the news will be displayed for that category.

Sentiment analysis

Enter your text to be analyzed

hate javascript

Analyze

negative

-85.45 %

```

//scope.type = data.type;
//});

$scope.getSentiment = function (text) {

    $http({
        method: 'GET',
        url: "http://localhost:8080/Lab10Ase_pk/rest/sentiment/" + text,
        contentType: "application/json"
    }).success(function (data) {

        $scope.type = data.type;
        $scope.score = data.score * 100 + ' %';

    })

};
})

```

User can enter any input and sentiment will be generated.