

An Open Web API for the Business Applications

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ABSTRACT

Web mining is new platform of analysis in info technology. Numerous business applications that utilize data processing and text mining techniques to extract helpful business info on the web have emerged from text to web mining. Its aim for business Owner to finish their task in seconds throughout their store update, without doing anything manually.

Recently several giant firms Google, Microsoft, , e-Bay have opened access to their services and knowledge through Application Programming Interfaces (APIs). In Business, these API's give a perfect playground for start-ups to make a valuable quality in investment. There are three modules in this paper, particularly Amazon and Google eBay etc. These modules may give complete information, like costs of the retailer on that sites, auction costs and vendor details on eBay, and updated news of sure things from Google, on same platform.

Keyword: Data mining, Information Technology, Web mining, Open Web APIs, Business.

1. INTRODUCTION

Web mining is application of knowledge mining technique to get patterns from web content. Web usage mining approaches are applied to Application programming interface (API)-based learning. Web mining is new platform of analysis in data technology; such a big amount of business applications that utilize data processing and text mining techniques to extract helpful business data on the online have emerged from text mining to Web mining.

Web mining can be classified as

- 1) Web content Mining: Web substance mining could be a methodology of concentrating knowledge from writings, footage and totally different substance.
- 2) Web Structure Mining: Web Structure Mining could be a procedure of concentrating knowledge from Linkages of web site papers.
- 3) Web Usage Mining: Web Usage Mining could be a procedure of concentrating knowledge from sites to utilize data or information [1].

1.1 API

Application programming interface (API) is a set of procedures, functions, protocols and rules. It specifies how different software components or packages should interact with each other. It allows the creation of new applications from old one by using existing system or database i.e. it access the features of other services. It plays the role of interface between different software programs and make ease of their interaction similarly as user interface facilitate between human and computers. API is like an intermediate between two people who interact with each other using completely different languages. In software, data can be used or distributed using an API so that two different kinds of software packages can communicate. An example of API, we are purchasing an item online through online payment methods. We will provide credit card details and press next button. It will tell us whether our info is correct or not. To provide this kind of information, there are lot of things to do in back-end. The application will send our payment details to application which is able to check our info and send the result back to our application.

In education, API's offer a perfect playground for developers to accumulate a valuable expertise in investment. Several business applications that utilize information and text techniques to extract helpful business info on the web

have evolved from web mining. Application Programming Interfaces (APIs) that are created by major web firms (e.g., Google, Amazon, and eBay) in our project to show web application. We have a tendency to expect our platform, may offer complete product info, like retail costs on Amazon, auction costs and merchant details on eBay, and updated news of sure things on Google. So as to create our module, we have to establish strong modules to fulfill the potential needs of our platform which may offer complete production info, like retail costs on Amazon, auction costs and merchant details on eBay and updated news of sure things.

As above description, we consider following 5 different views to construct the Business model:

1. Target customers
2. Services provider
3. Potential business partners
4. Information resources
5. Financials.

Our Target customers are start-ups who need to check costs before edit or set costs in his on-line store or application. Moreover, we offer services as well as product info gathered from eBay and Amazon; Google searches updated info about products.

Additionally, we can get info resources from e- Bay, Amazon, Google. The financials opportunities inside the platform would be positioned on completely different business values. Our business modules are enforced by accessing API of Amazon, eBay and Google.

1.2 General Architecture Of API

API is set of software chunks, in xml format. There are different methods for communication as GET, PUT, POST, and DELETE. User sends request to API accordingly response as he want. Here user can be anything as site, mobile application, any software, and then API communicate with specified service database. Database give response back to API and API give corresponding response to user. It uses Hypertext Transfer Protocol [HTTP] for communication purpose.

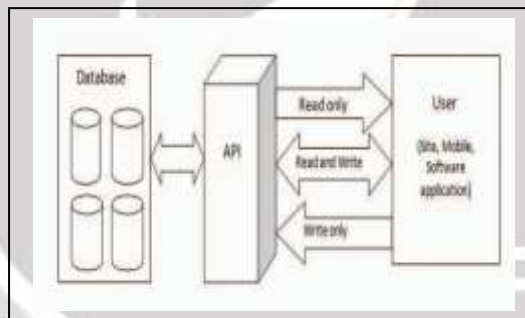


Fig-1:Architecture of API

2. LITURATURE SURVEY

1. Author [1] introduces Basic ideas of web-mining. He introduced web mining classification as web usage mining, web content and web structure mining with detail description. He deals with preliminary discussion of web mining. Author concluded that Companies or organization need to implement Web mining systems or functions to know their customer's profiles, and to find out their own strength and weakness of their E-marketing efforts on the web through continuous enhancement.

2. Author [2] work with open web application programming interface. They implement WishSky architecture. They retrieve the function provided by open web API's and other open source data mining software like WEKA. WishSky is integrated wish-list management system. The system introduces associating news and also gives the relation between user and owner.

3. Author [3] observed that, when we develop a application using open web API's, if a small change occur in API then it will completely break our application. so author conducted a case a study of evolving API's to find out what changes are may need to do in document and communicate to API users who are using it. The list contains API change profile, version, documentation and communication. After the study of multiple webs API's author concluded

that there are still lots of problem with API evolution which should discuss in future.

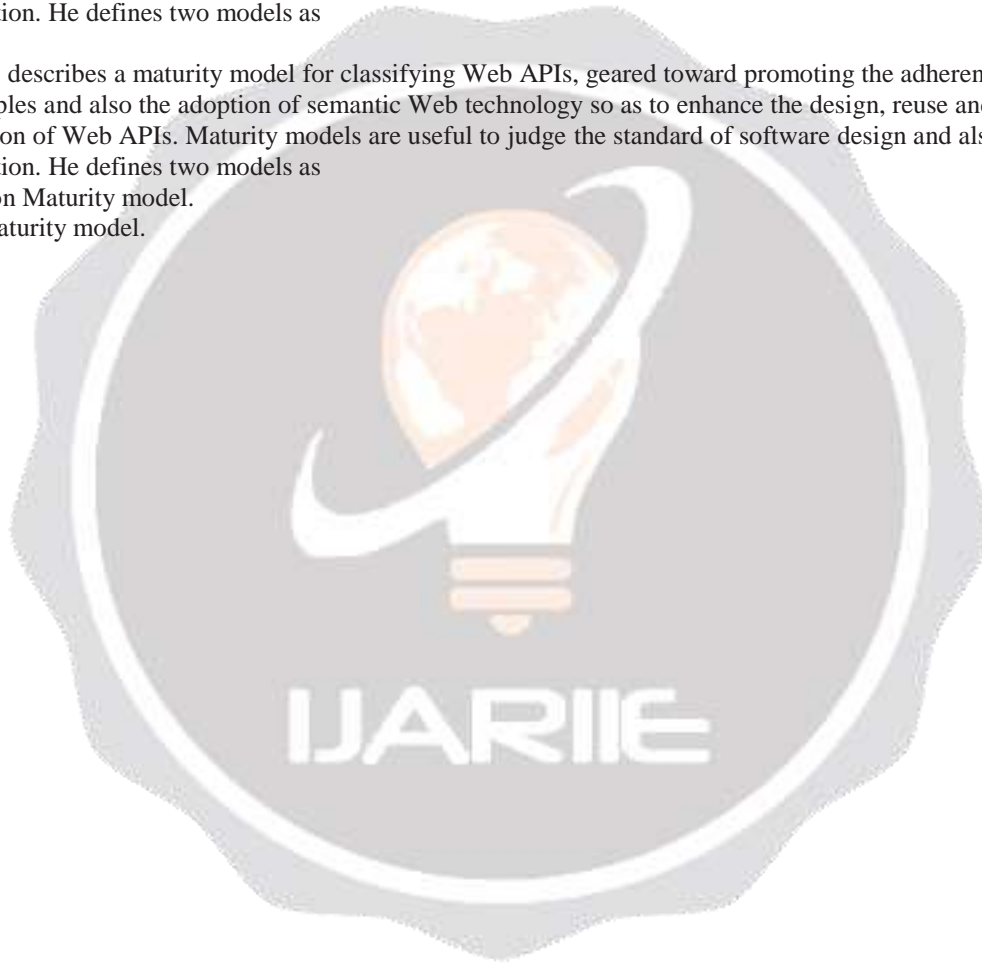
4. As web API evolve, it brought new and improved features but also it came with some incompatibilities. So that users need to modified according to changes to use new API. Therefore migration or making modification is difficult task. So Author [4] reports a study on web API evolution to address migration issue. So that author summarizes the API changes into 16 patterns. He identified new challenges which do also not exist in local API's.

5. Web-based API is new fashion for publishing services, so to use API; we should follow service rules or specifications. So Author [5] presents an approach to infer data contracts for web based API using decision tree learning technique. This approach integrates parameters, error message and testing results.

6. Author [6] describes a maturity model for classifying Web APIs, geared toward promoting the adherence to REST study principles and also the adoption of semantic Web technology so as to enhance the design, reuse and documentation of Web APIs. Maturity models are useful to judge the standard of software design and also the ensuring implementation. He defines two models as

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1. Richardson Maturity model.
2. COHA maturity model.



3. PROPOSED MODEL

When overall business model of our modules are initiated, some important analysis challenges need to be overcome. These challenges may be categorized as

1. Friendly User Interface.
2. Web-services API's.
3. Integration.

3.1 Friendly User Interface

Because Platform is designed for web users as well as aged and young users. It's important for Platform to create up friendly surroundings to serve multi-aged users. Therefore, there are 3 major problems with Interface.

First, the operation processes of Platform needs terribly simple to use, and there need to be some clear instructions to guide users with more info to perform powerful operations of platform.

Second, attention-grabbing and wonderful interface is important for platform to enticing a lot of traffic.

Last, well-design interface should combine together and provide all operations in Platform or to users

3.2 Web Services API's

According to our initial planning there are three API's in Platform and these API's come back from Amazon, Google, and eBay. Basically, API's of every web-service supplier need to be tested, because there may be some differences between API's and system design.

As an example, a way to integrate completely different knowledge formats of heterogeneous API's is important technical issue to solved, as each database have different format. So as to gain the planned functions, some Amazon API's, like customer's wish-lists and item search, need to be combine together in Platform.

Moreover, out there auction search of eBay API is employed to supply user's valuable auction details and on Google API's, new search is important to be adopted to look updated news associated with merchandise.

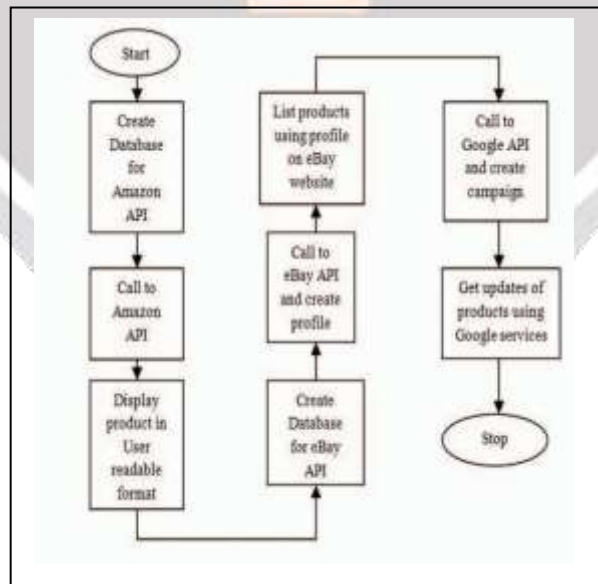


Fig 2: Flow diagram of proposed system

As shown in flow diagram, we have to start with searching a product with category as we want, after that keyword matched list is displayed, then user need to select the product he want to store in his store, after importing, selected product will stored in local database. In local database we can make changes or edit the description of product or price

which is saved in local database. Then we can display product in user readable format. After that we can list the product on eBay using profiles and template and we can get updates of products using Google services.

The features of our project rely on the modules that are set in our project.

- 3.2.1 Amazon search: The kind for the user to enter search criteria
- 3.2.2 Google search to varied sites.
- 3.2.3 Listing eBay.

3.2.1 Amazon Search:

Amazon API is termed to retrieve the products that contain the desired search criteria. The address admire the page is then retrieved therefore the physical Amazon. in page is loaded.

After that user can choose the product that he need to store in his store which keeps in native info, at that time we download the info of selected product and store it in local database. We can also search the product using CSV import i.e. by ASIN no of products. We can spin the outline of product to avoid duplicity, and might edit the worth of product in local database. Subsequently we can show product to customers in user readable format. Here our potency is exaggerated as we create changes to original info [12].

3.2.2 EBay listing:

The eBay API is termed to a listing of products to auctions. The application uses the eBay Sandbox to test API.

We can list products to eBay site that stored in Amazon's local database using different, different profiles that contain eBay classes, come back policy, payment methodology, and shipping strategies. For eBay module also we create local database which store info about seller, seller's account, profiles and auction details. We also use template which guide



outline the however data are displayed on eBay web site [13].

eBay listing using API is different is from eBay listing using site, as shown in figure.

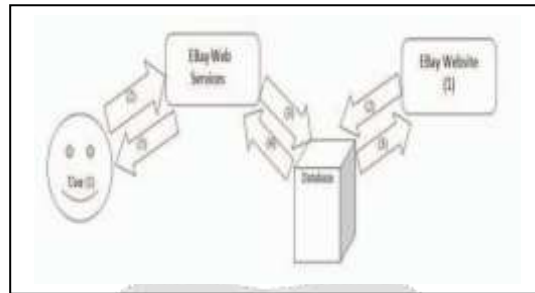


Fig 3: General working of eBay API.

By using eBay API

1. User makes searching using application
2. Application sends request to eBay web services
3. eBay web services make request to database.
4. Database gives response back to web services. 5. Web service give according response to application or to user.

Without eBay API:

1. User search in eBay site.
2. Request goes to database.
3. Response displays on eBay site

3.2.3 Google API:

The Google API is termed to retrieve the primary results from varied domain that contains the desired search criteria. By limiting the Google search domain, the primary results possible to be a match to the particular search criteria. Once the address is known by Google, the contents of the physical page are loaded into the browser for written material. For that purpose we are using different Google services as YouTube API for getting updated news about sure things .

Generally, Application send request to Google servers and Google servers send request to API. For making request to API user need to login. Google sends authorization code to application. By using token application make request to Google after that Google send response back to Application. Then app uses tokens to make a call to API.

Users access the application through web browser. The browser uses hypertext transfer protocol request

to interface with our application. Business application connects to eBay, Google and Amazon via internet Services. Application uses simple object access protocol (SOAP) calls, the application is ready to dynamically request and receive data from every web site.

4. CONCLUSION

In this project we have a tendency to project an innovative business plan with compressive and thoughtful service, friendly and user interface, most significantly, the optimistic immense market price. This can be a project that goes round the development of GUI, that's meant to create the association to totally different databases from single interface in a straightforward, fair, faster, and reliable manner. Code to be designed that deals with completely different databases and execute different forms of SQL statements from one Tool or from same GUI. Users will produce the connections for each and every information and store it's in Tool. User can even execute statements and see the leads to the Tool solely can also Commit and rollback the SQL.

5. FUTURE WORK

In the future, Along with Amazon, eBay and Google, we can also use Flip cart and snap deal's API's on same platform

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