**Task 1 : - Problem**

At Indiabizforsale.com; on one side, we have businesses listed for sale and businesses looking to raise funds; Whilst on the other side we have buyers/investors looking to buy or invest into a business. These businesses may be listed for different transaction requirements (like available for full sale, part sale (to raise funds or sell non-core area of business), asset sale, franchise, distributorship etc).

Any business listing would have some common data points e.g. Gross profit,number of employees, Financial turnover, EBITDA.

Additionally, based on each transaction type (as defined above), we need to capture further details specific to each transaction type.

E.g. Full sale : company reputation, number of directors or partners, legal entity information,

Franchise : franchise name, licensing fees, royalty fees, etc.

Asset Sale : type of assets, market value of asset, etc.

[Please note, a listing can have multiple transaction types as well].

**Solution : using Firebase database is be an efficient solution**

It stores data in the form of one large JSON tree

It stores in the form of key value pairs

CONSIDER THE FOLLOWING STRUCTURES

|  |
| --- |
| BUYER |
| SELLER\_ID |
| NAME |
| BUSINESS TYPE |
| LOCATION |
| INDUSTRY |
| BUDGET RANGE |

|  |
| --- |
| SELLER |
| BUYER\_ID |
| NAME |
| BUSINESS TYPE |
| GROSS\_PROFIT |
| NO OF EMPLOYEES |
| TURN OVER |
| LOCATION |
| INDUSTRY |

|  |
| --- |
| FULL SALE |
| BUYER\_ID |
| COMPANY REPUTATION |
| NOOF DIRECTORS |
| LEGAL INFO |

|  |
| --- |
| FRANCHISE |
| BUYER\_ID |
| NAME |
| LICENSING |
| ROYALTY FEES |

|  |
| --- |
| ASSET SALE |
| BUYER\_ID |
| TYPE |
| MARKET VALUE |

CONVERTING THEM TO A JSON TREE

{

“buyer” : {

“1” : {

“name” : “abc.in”,

“business type” : “online shopping”,

“location” : “Chennai”,

“industry” : “shopping”,

“budget range” : “40l - 10l”

},

},

“seller” : {

“01” : {

“name” : “nort.in”,

“business type” : “textiles”,

“location” : “Chennai”,

“industry” : “clothing”,

“budget range” : “90l - 11l”

},

},

“transaction\_type” : {

“full sale” : {

1: {

“reputation” : “popular”,

“no of directors” : “4”,

“legal info” : “authorized”,

}

},

“franchise” : {

2: {

“name” : “uit”,

“licensing” : “HPND”,

“royalty fees” : “20l”,

}

},

“asset\_sale” : {

3: {

“type” : “equipment”

“market value” : “10L”

}

},

},

}

Advantage :

* As the problem context deals with multiple businesses ,more often we would need to store data about a business which is not common to all the business types

Ex: If the business is an online shopping site then we need to store data like sales activity of the website, analytics , performance etc.,

Creating attribute for these kinds of uncommon data would be inefficient

Hence JSON tree model is efficient

Analytics

At the heart of Firebase is Google Analytics for Firebase, a free and unlimited analytics solution

Key capabilities:

Unlimited Reporting : Analytics provides unlimited reporting on up to 500 distinct events.

Audience Segmentation : Custom audiences can be defined in the Firebase console based on device data, custom events, or user properties. These audiences can be used with other Firebase features when targeting new features or notification messages.

The SDK automatically captures a number of events and user properties and also allows you to define your own custom events to measure the things that uniquely matter to your business. Once the data is captured, it's available in a dashboard through the Firebase console. This dashboard provides detailed insights about your data