



TASTHANA



Frequently Asked Questions

Preamble

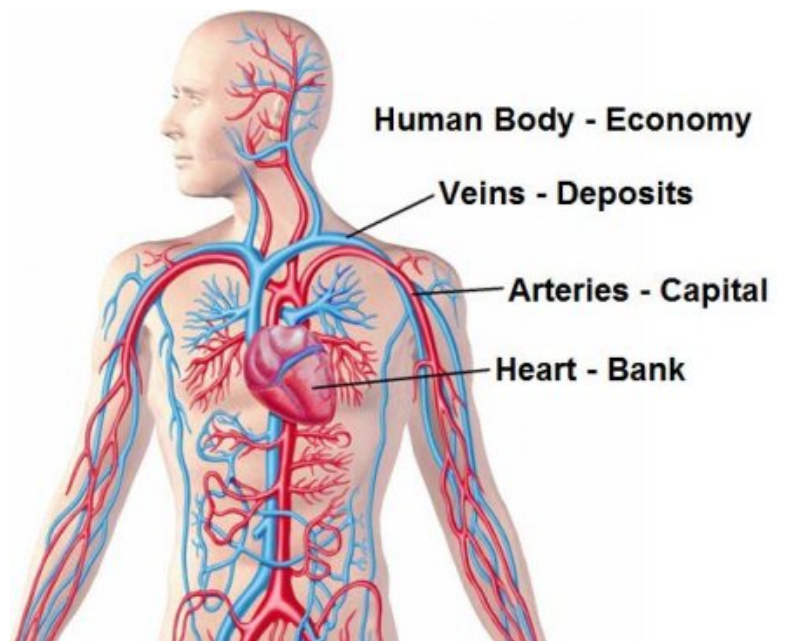
One of the important functions of the Bank is to accept deposits from the public for the purpose of lending. In fact, depositors are the major stakeholders of the Banking System. The depositors and their interests form the key area of the regulatory framework for banking in India and this has been enshrined in the Banking Regulation Act, 1949. The Reserve Bank of India is empowered to issue directives/advice on Interest Rates.

Banks are now free to formulate deposit products within the broad guidelines issued by RBI.

Why Deposits are Crucial?

As written by **Sanderson Abel, Business Correspondent in The Herald**, the banking system in an economy is analogous to the heart in the human body structure and the capital it provides can be likened to blood that circulates in it. As long as blood remains in circulation, all the organs in the body will remain sound and healthy. If blood is not adequately supplied to any organ or part of the body, then that part will be starved of nutrients and oxygen and will become useless.

Similarly, if finance is not provided to any economic sector, it will suffer and that sector will eventually fail. However, the ability to provide the relevant financing is dependent on the ability of the banks to mobilise adequate amount of deposits in the economy and other foreign sources of funding.



What are the various types of Deposits?

RBI has defined the deposit schemes as follows:

Demand Deposit means a deposit received by the Bank, which is withdrawable on demand.

Savings Deposit means a form of Demand Deposit which is subject to restrictions as to the number of withdrawals as also the amounts of withdrawals permitted by the Bank, during any specific period.

Current Account means a form of Demand Deposit wherefrom withdrawals are allowed any number of times depending upon the balance in the account or up to a particularly agreed amount and will also include other deposit accounts which are neither Savings Deposits nor Term Deposits.

Notice Deposit means Term Deposit for a specific period but withdrawals allowed on giving at least one complete banking days' notice

Term Deposit means an interest-bearing deposit received by the Bank for a fixed period – withdrawable only after the expiry of the fixed period; subject to terms & conditions stipulated by the Bank, from time to time. It includes deposits such as Recurring /Cumulative /Annuity /Reinvestment/Double Benefit Deposit/Short Deposit/Fixed Deposit/ deposits and Cash Certificates

What is Tasthana?

It is an innovative product from the House of Annona IT Solutions Pvt. Ltd. It is a One-Stop Solution for Deposits as it encompasses all forms of Deposits available in the market and much more.

What is the meaning of Tasthana?

Tasthana is a Sanskrit word meaning “**As Flexible As The Stalk of A Lotus**”.

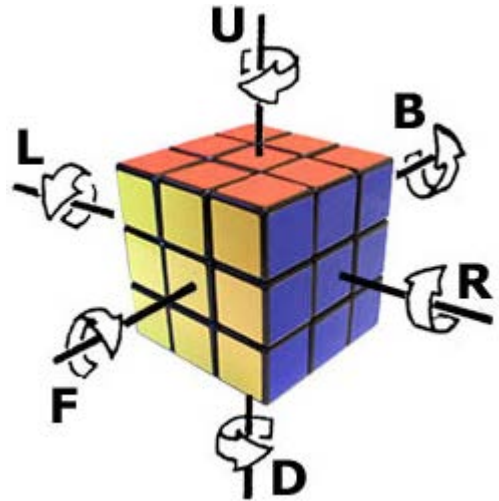
What does Tasthana do?

A Deposit consists of 4 fundamentals:

1. PRINCIPAL
2. TENURE
3. RATE OF INTEREST
4. INTEREST PAY OFF – Monthly, Quarterly, Semi-annually, Annually

Tasthana overcomes some of the inherent flaws of current bank deposit systems by:

- The principle deposit amount can be increased or decreased by the bank customer.
- The bank deposit tenure time can be modified.
- The payoff amount can be deposited amongst multiple accounts.
- Any amount can be withdrawn by the customer in middle of the tenure.
- All auto deposits can be combined if interest rates are same.



It is like a Rubik Cube where the Principal, Tenure, Pay-outs can be modified as and when the user chooses. It is only the Rate of Interest which the bank chooses.

Please see the example below:

1. Assuming on 01st April 2017, a customer deposits say ₹ 10,000 with the bank for 1 year at an interest rate of 6 % per annum.
2. After 11 days, the customer wants to add ₹ 500 more to the account, she can do it.
3. Then after 17 days the customer wants to increase the tenure from 1 year to 18 months she can do it.
4. Then after 5 days the customer wants to withdraw say ₹ 1,000 she can do it.
5. Then after 29 days the customer wants to decrease the tenure to 151 days she can do it.
6. In the meanwhile, if the customer wants to take the whole monthly interest pay-out or in parts say 13.17% or a flat amount of say ₹ 3,000/- it will be deducted from the Interest and can be done on a one-time basis or monthly, semi-annually or annually.

What are the Salient Features?

- Creation and monitor of customer accounts and deposits.
- Setting and updating interest rates and taxes for different categories of customers.
- Creation of new deposits by customer/bank.
- Dynamic modifications of deposits.
- Dynamic creation of Sweep Deposits

- Withdrawals of deposit amount anytime as requested by the customer.
- Adding and monitoring payments done by customer on their deposit.
- Various Annuity Products.
- Calculation of Interest and TDS automatically each month.
- Generation of Reports.

Who are the Users?

The Users are the bank's customers.

Can it be used by corporate customers?

It can be used by any customer of the bank.

How does Tasthana conform to the Deposits as defined by RBI?

It comes under Term Deposits allowing Additions and Partial Withdrawals of Principal and full or partial withdrawals of interest as fixed by the bank apart from modifications on Tenure. It is broken up into 2 parts proportionately say 40:60, 30:70, etc. as follows:

Term Deposit (40%) – Interest bearing Fixed Deposit allowing Top-ups and tenure modifications anytime but no withdrawals of both principal and interest.

Term Deposit (60%) – Interest bearing Deposit allowing Top-ups and Withdrawals of both principal and interest and tenure modifications, anytime.

Being a single deposit, it will have the same tenure and interest. Any top-ups would be added to both the parts proportionately. Also, all withdrawals will be partial withdrawals.

Where will the software be hosted?

This software is cloud based and will rest in the servers of the bank. It can be accessed by any branch, any ATM and any customer anywhere, anytime.

How does it benefit the Users?

It helps the users as follows:

- It helps create A Corpus
- It gives the option of Withdrawals
- It gives the convenience of a savings bank with deposit rates
- It is very easy to use

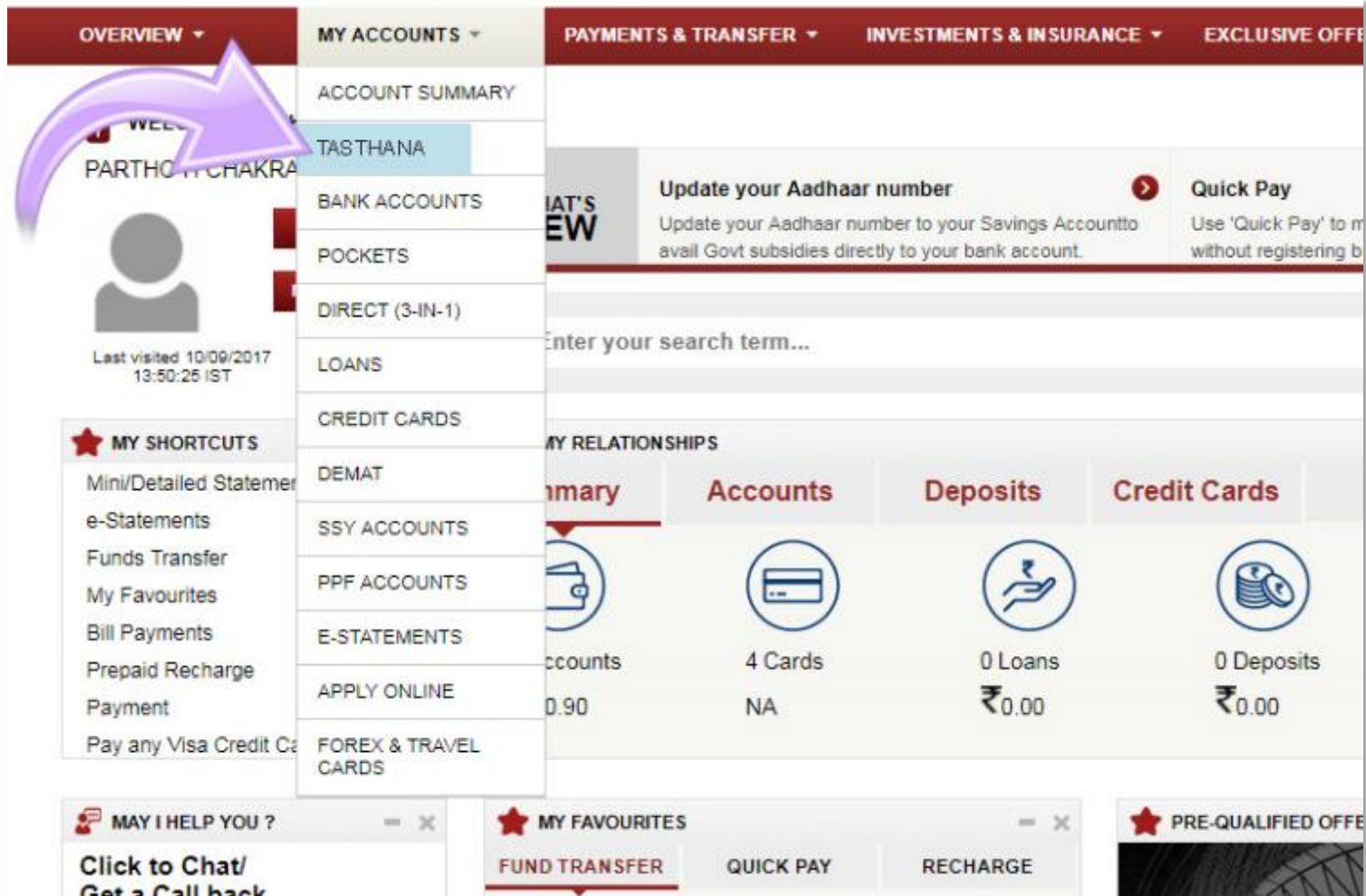
It caters to all forms of deposits as prevalent in the market today and it is a one-stop shop for all types of deposits. More than that it gives the users the total flexibility in Deposits as one sees in a Savings Account. This will help in getting more deposits as one can put or take their money, increase or decrease tenure and pay-off as and when they want.

The customers earn more than the deposits in the market today and do not lose out on falling interest rates as long as tenure is not reduced. A happy customer is a repeat customer apart from referrals

Do you need separate User IDs, Passwords, OTP, etc. to access it?

No, you do not require any separate User IDs, Passwords, OTP, etc. to access it. It will be hosted in the bank as a menu and you need to access the bank's website like you do for your Savings or Current Account.

Please see the web page below:



Does it have provision for Joint Holders?

It has provision for Single, Joint and Multiple Holders. For Joint and Multiple it will take as per the proportion mentioned. For example, if there are 5 users in a Consortium, it will ensure that Principal, Interest, Pay-outs are done as per the proportion of the deposit held. For example, a 5-member joint consortium could have the following break-up:

A: 50 B: 20 C: 15 D: 10 E: 5

Any increase or decrease in principal and tenure will increase or decrease proportionately as mentioned-above.

For example, if an interest of say ₹ 20,000 where TDS is ₹ 2,000. Here is A wants to take 30% of it whereas E wants 10%, others do not want any interest. Tasthana will first deduct the TDS from the Interest giving an interest of ₹ 18,000. Now from ₹ 18,000 it will calculate the interest pay-out and credit the accounts accordingly.

Here A wanted 30% which comes to 30% of ₹ 18,000 giving ₹ 5,400. A can take maximum 50% as per her percentage which is 50%. Now E has asked for 10% but it will be declined as her share cannot exceed 5%.

Also, TDS will be deducted proportionately from the accounts. In our above-mentioned example A will pay 50% of TDS or ₹ 1,000 whereas E will pay 5% of TDS or ₹ 100. Thus, the pay-out of A will be ₹ 5,400 - ₹ 1,000 = ₹ 4,400.

How does it benefit the bank?

A flexible deposit of this types will encourage people to put money as it is so easily configurable. This will help the bank in getting more deposits Also, a bank can earn a lot in fees for amendments made to the Deposit. In turn it helps the banking system as funds get channelized to it.

How has the interest been calculated?

It has been computed interest compounded daily. The formula used is:

$$A = P (1 + r/n)^{(nt)}$$

$$I = P (1 + r/n)^{(nt)} - P$$

Where A is the Amount, P is the Principal, I is the interest, r the Rate of Interest, n the number of times compounded, and t is the tenure.

The interest is computed monthly and added back to the Principal. If any deductions or pay-outs must be done, it is done from the interest and the balance is added back to the principal.

Is it configurable?

Yes, it is configurable and the bank can have its method of calculation as they want it.

Does it compute TDS?

Yes, it computes TDS automatically. It computes the TDS as per the interest, amount and tenure. If it is more than ₹ 10,000 it will deduct TDS else it will not deduct TDS.

The moment there is any change in the amount or tenure it calculates the TDS proportionately. For example:

Assume the interest is ₹ 1,00,000 and TDS is 10% at ₹ 10,000 for June 2017 at 12th June 2017. Now on 13th Sept the amount has been changed to say ₹ 100,500 and let us assume we have a new Interest of ₹ 10,500 at June 30, 2017, then the new TDS will be ₹ 10,500 - ₹ 10,000 giving an additional ₹ 500. This will be computed automatically for each quarter.

Please note that any modifications in the account will have modifications in the interest and it subsequently reflects in the TDS. Thus, if the TDS was calculated initially for interest at 6.5% and paid whereas the modified interest shows a lesser interest for 5%, TDS will reflect at the current interest rate from the date the modification happens.

But if the TDS has already been paid then it cannot be refunded and the depositor should approach the Income Tax Authorities for any refunds, if applicable.

Does it accept Form 15 H and Form 15 G?

Yes, it accepts form 15 H and 15 G which can be downloaded from Tasthana. The user must fill it and submit it to the bank.

The TDS will stop from the date the form is accepted. If any TDS is paid prior to the submission of Form 15 H and 15 G, the depositor must claim a refund from the Income Tax Authorities if applicable.

What are Penalties?

We have given the bank an option to charge a Penalty if a customer makes more than 2 changes in a month. Then the penalty can be a flat amount of say ₹ 150 or in a percentage.

This is up to the bank whether it wants to charge any Penalty or not or how many changes it can allow a customer.

Does it calculate Taxes?

Yes, it calculates GST and it is configured for CGST, SGST and IGST. It calculates the taxes automatically.

How does it ensure that there is no Asset Liability Mismatch?

The break-up is there to prevent of Asset Liability Mismatch. We have broken the deposit in 2 components where 40% is factored in a Fixed Deposit and the balance 60% is Variable where the customer can play around with.

This way the Fixed Component is not touched but any amount added will have 40% added to the Fixed Component and 60% to the Variable and withdrawals are from the Variable only.

Tenure changes and TDS will affect both the Fixed and Variable Components. The Penalties and GST will be deducted from the interest payable to the Variable Component.

All pay-outs from monthly interest will happen from the Variable Component only.

If the account is closed then the Fixed Component gets closed along with the Variable Component.

Are there any Use Cases?

Yes, we have Use Cases and it can be referred by the bank.

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Are there Arbitrage Opportunities?

Tasthana ensures that such opportunities are not exploited and has made adequate provisions for it.

For example, if a depositor deposits ₹ 10,000 for say 1-year tenure and an interest at say 6% per annum, modifies or closes her account after 3 months then the interest will be re-calculated at rate of the tenure for 3 months for ₹ 1,000 which if it is say 5% then the depositor will get 5%. She will not get 6% or the additional 1%.

This way no arbitrage opportunity can be availed from Tasthana.

Are there any regulations that it must conform with?

No, it does not contravene any regulation. A bank can offer deposits and it can be flexible and variable as Tasthana. It is up to them to offer rates which are a combination of RBI and market conditions.

Is the product very complex?

No, not at all. Tasthana is extremely easy to use for the bank and their customers. The complexity lies in the calculations which are all back-end and not visible to anyone.

What was the software used to develop Tasthana?

Tasthana was developed in Java – Latest Version and configured with web services. Thus, it can easily rest in any system and communicate effortlessly with other existing software in the banks.

What were the Technologies used to develop Tasthana?

Java, Spring, Hibernate, JSP, JSTL, Java Script, RESTful Web Services.

What were the API's Used?

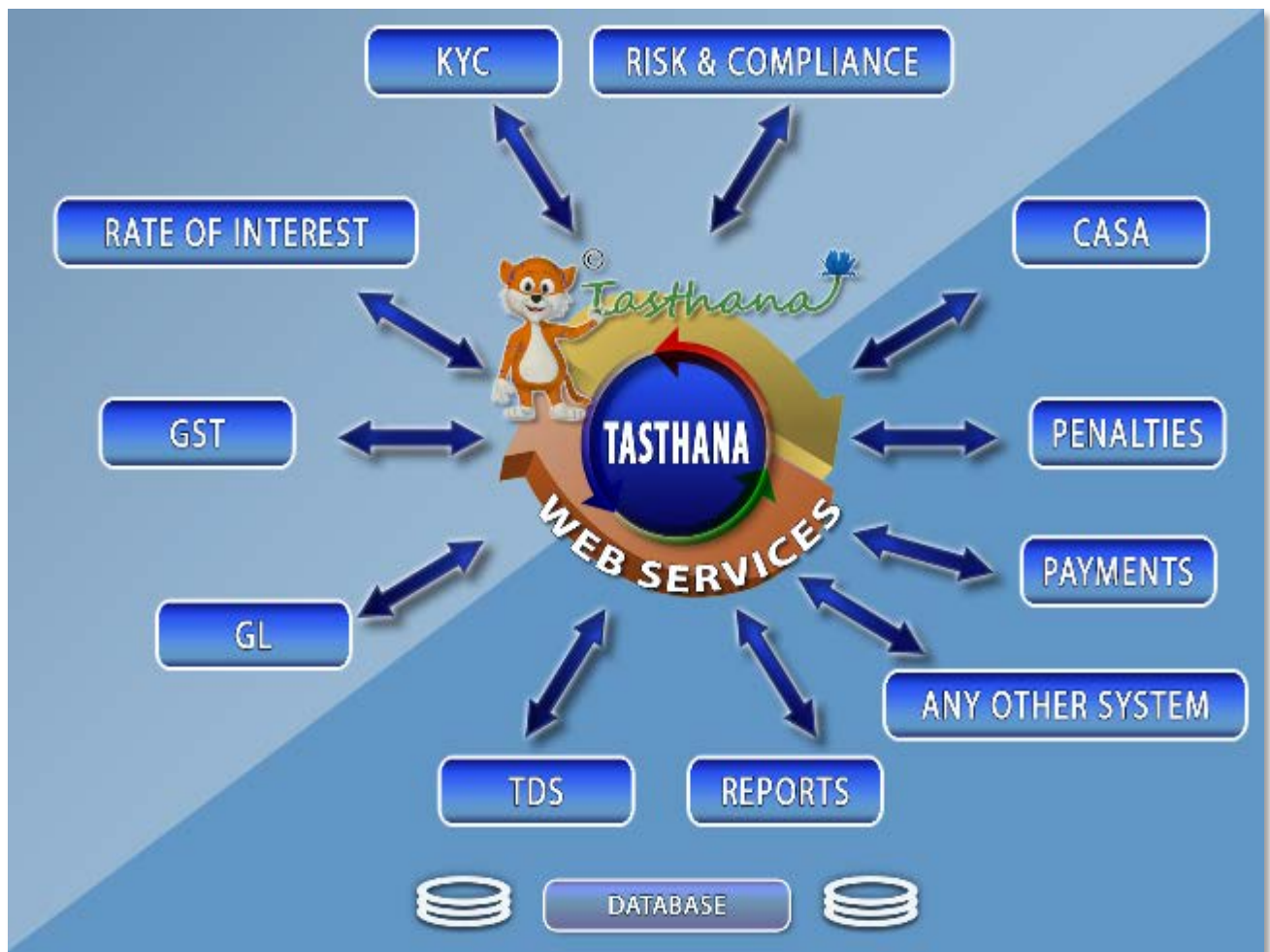
The API's used are J2EE, Hibernate, JAX-RS, REST.

Is Tasthana linked to Cards?

Yes, it is linked to cards. Any user can use a Debit Card to withdraw money from their deposit.

What are the touch points of Tasthana?

Tasthana communicates with quite a few systems in the bank. Please see the diagram below:



How will the Integration be done?

Integration will be done where Tasthana will use Webservices to communicate with the Host System and it will rest with all other software in the host system.

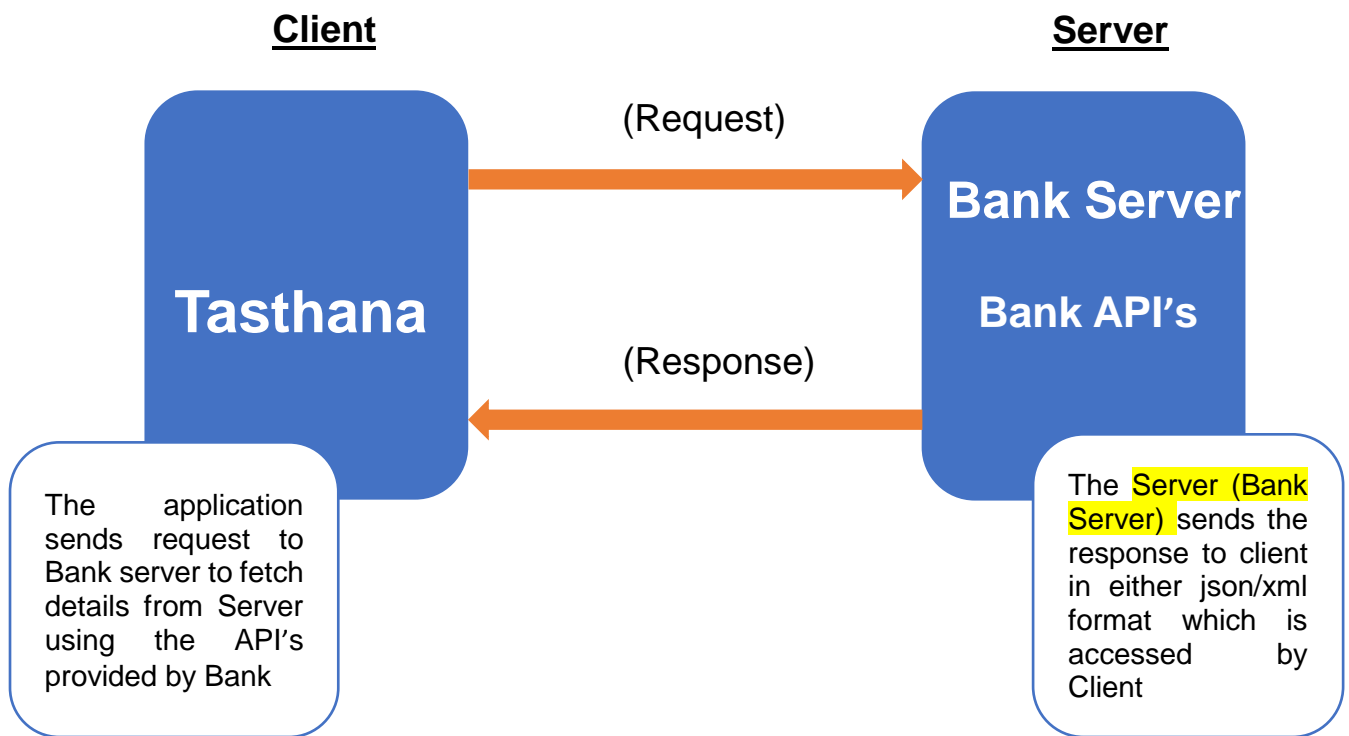
It will push and pull relevant data in and out from the host system. All Calculations will be done, deposit booking, TDS, etc will be done in Tasthana. If the host system has some already existing features such as TDS, GST, Dashboard, then Tasthana will push relevant data for computation in it. For example, Tasthana will push Interest to host system to calculate TDS and Penalties for calculating GST. It will use the host system for Reports and Display. All other functions will be done in Tasthana. It is not that Tasthana cannot do it independently, but the point here is to work alongside with existing systems in harmony.

A point to note is that **NO SYSTEMS HAVE BEEN MADE TILL DATE TO DO ALL THE FUNCTIONS OF THE BANK AND NONE IN THE FORSEEABLE FUTURE.**

Thus, systems however disparate, will have to work in harmony with each other. For example.

Finacle from Infosys, Trade Finance from Misys, Reuters, etc.

Below diagram depicts integration with Bank server wherein the server-side API's and Client-side response handling both are provided by Tasthana or where Bank gives the API's which will be used in Tasthana



What is the size of the code?

The size of the code is 40 MB.

What is the current database?

The database is PostgreSQL but it can be configured with any database.

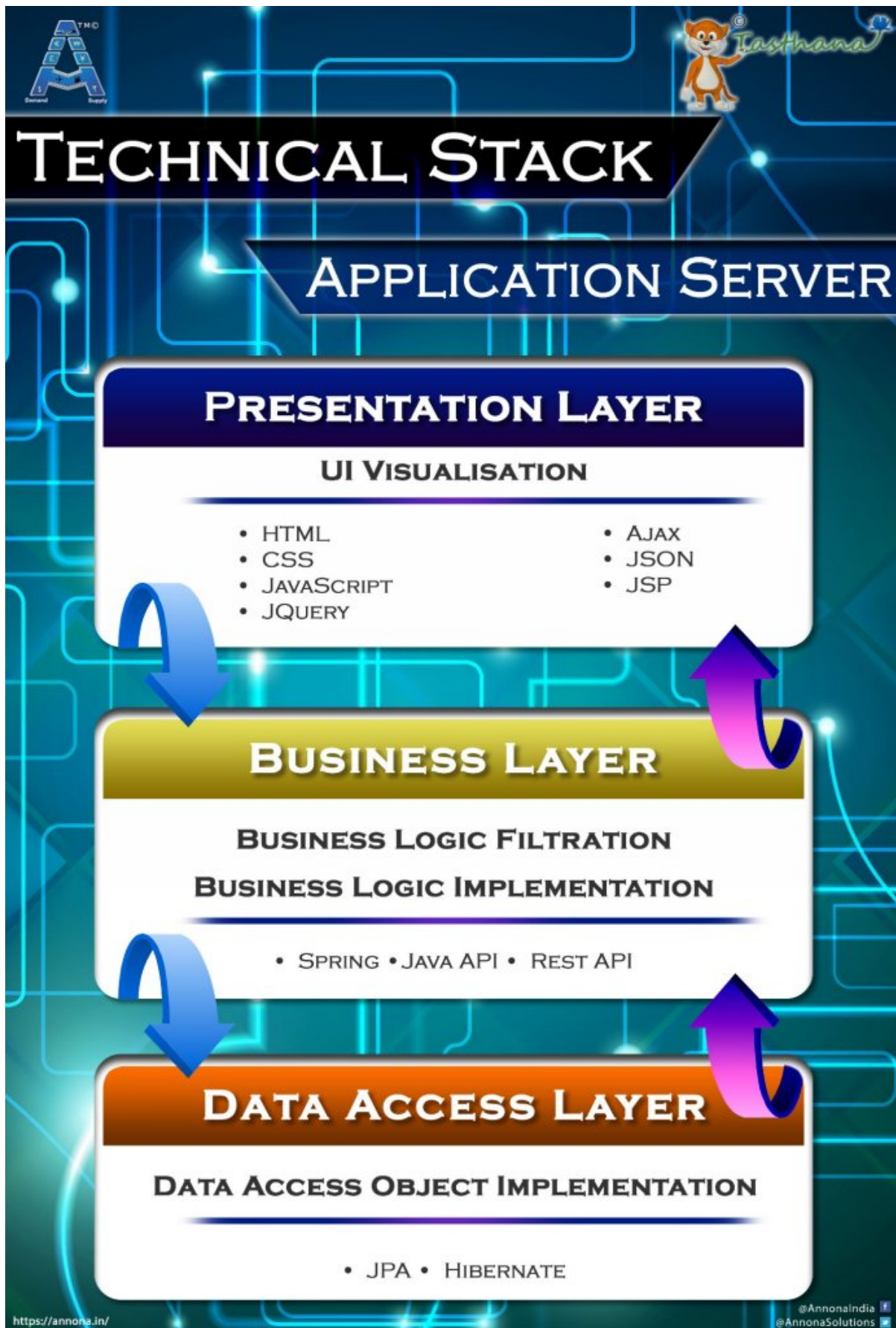
Is Tasthana Cloud Based?

Yes. It is light and sits in the bank server which can be accessed by all branches, ATMs and customers apart from Bank Employees.

What is the Architecture?



What is The Technical Stack?



Why should the banks take this product?

Today all deposits are same. There is nothing novel in it and when banks fight out amongst themselves all they can offer the customer is better rates. Apart from it there is nothing. Tasthana changes the way deposits are being done today giving the customers flexibility, banks funds and ensuring a happy customer is repeat business along with referrals.

On the part of the banks they must show some flexibility on waiving the penalty of 0.5% on modified deposits and encourage customers to top-it for any changes. In this way the amount lost from 0.5% is easily recovered in the form of additional deposits. A customer is always happy if she does not lose funds and this will go a long way in ensuring customer loyalty.

Has a Patent been applied for it?

Yes, a Patent has been filed with early listing. The Patent details are given below:

12/3/2016

ipindiaonline.gov.in/patentsearch/PublishedSearch/publishApplicationNumber.aspx?application_number=Cz+Dvi3392ogG+ZIfsKBQ**



Controller General of Patents, Designs and Trademarks
Department of Industrial Policy and Promotion
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(57) Abstract:

SYSTEM AND METHOD FOR MANAGING A DEPOSIT ACCOUNT DYNAMICALLY ABSTRACT System and method of managing a deposit account dynamically is disclosed. At first, a principal amount is received from a user to be deposited for a certain period of time, at a financial institution. The user deposits the principal amount, to receive an interest rate on the principal amount, and retains the principal amount for the certain period of time. The principal amount and an interest amount corresponding to the interest rate are paid as a payoff to the user at the end of the certain period of time. Within the certain period of time, the user requests to change at least one of the principal amount, the certain period of time, and the interest rate. Based on the request, the payoff is dynamically calculated. The payoff is calculated for remainder of the certain period of time corresponding to the principal amount and the interest rate. [To be published with FIG. 2]

Number of Pages = 0

Can it be customised as per the bank's requirement?

Yes, it can be customised as per the bank's requirement.

Can any bank test the product?

Yes. Any bank can test the product. We have hosted the product on our website and the banks can log in our website and test the product.

If the banks want to test the product on their environment, we will help them to install our software in their environment for testing it there.

What are the steps a bank must take to work on the product?

First the bank will have to create an Administrator. The Administrator will create a Bank User and Bank Approver. The Bank User will create a Customer. The customer can then interact directly through the net, over ATM or can come to the bank and get the work done through the bank employee called the bank user. If any action is done by a bank employee then it will have to be approved by a bank approver.

A point to note is that bank employee and bank user and approver will have a fixed period as per the bank's discretion such as say 1 year after which their rights and usage will have to be renewed by admin. The admin can suspend a bank user, approver and customer for any violations or keep their accounts on hold if they are on leave or even close the accounts. Similarly, the bank approver can suspend a bank user and customer for any violations or keep their accounts on hold if they are on leave or even close the accounts.

If the customer interacts directly over the net or through ATMs, there will be no approval required.

Will there be hand-holding and maintenance from Annona?

Yes, Annona will hand-hold and take the users through the product. Also, we will help the bank IT team for any trouble-shooting and if need be even deploying a service technician on the bank premises.

Will there be future launches?

Yes, we will endeavour to improve the product and launch future versions.

Contact Us

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