

Electrical Car Loan Finance



Project Team-2 Members :

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Chapter-1: Introduction

❖ Electric Car Loan:-

The main objective of our project is to buy a Electric Car in finance Loan Company and to implement all the loan process by developing a code. First here, if we want to buy Car then we will go to first Enquiry section and he will explain everything related buy a car offer whole process to us and gives a Car quotation to you. If we do not have that much amount in current situation then he will suggest us for take a loan.

As already some banks have tied up with them e.g. ICICI, HDFC, SBI, and some other finance

companies. Then they will suggest us those providers and there's one relation executive person will contact you and explain all the process of Loan. Every bank has different process.

Apply for Green Car Loan : For Electric Cars Online in India | SBI-Personal Banking

- 8.85%* p.a. w.e.f. 15.02.2023
- Start From. 11.00% p.a.*
- 2.70% p.a. less than Rs.10 Cr
- 8.30% p.a.* *T&C Apply
- 8.65% p.a. *T&C Apply
- 7.00% 2 years to less than 3 year.

Subsidy in India

Gujarat, Assam and West Bengal offer a higher per kWh incentive of Rs 10,000, but the total subsidy is limited to Rs 1.50 lakh. Delhi offered (and since exhausted) the same amount as subsidy to the first 1,000 electric vehicle buyers, and Bihar's yet-to-be-notified EV policy also mentions similar benefits. Odisha offers an incentive of up to Rs 1 lakh for eligible vehicles, while Meghalaya – with an incentive of Rs 4,000 per kWh – offers a total subsidy of Rs 60,000.

Rajasthan, Andhra Pradesh, Karnataka, Madhya Pradesh, Telangana, Tamil Nadu, Uttarakhand, Punjab and Uttar Pradesh do not extend direct subsidies for electric cars and SUVs in their policies.

Once again, road tax for electric four-wheelers is completely waived in most states that have implemented the policy, except for in Gujarat and Kerala, where buyers have to pay 50 percent of the total road tax amount, and in Uttar Pradesh, where buyers are needed to pay 75 percent of the road tax amount.

Registration charges, meanwhile, have been waived for all kinds of electric vehicles across the country. [In August](#), the Ministry of Road Transport and Highways (MoRTH) announced all battery-operated vehicles are exempt from 'the payment of fees for the purpose of issue or renewal of registration certificate'.

Methodology Used For Web Site Development:-



Agile Methodology Relationship Executive:

Relationship executives identify and pursue business relationships with corporate and business unit executives. They create new business opportunities through customer relationships, while also providing value to customers through professional services agreements and solution sales. Relationship executives also establish strategic relationships with internal departments, including sales, marketing and business development teams. They use their internal and external relationships to develop sales strategies and service offerings that enable new opportunities for business and revenue growth.

Operational Executive:-

Operations Executive to organize and oversee the daily operations of our organization. The candidate will be the one to ensure that the business is well-coordinated and productive by managing its procedures and implementing the right process to ensure smooth operations.

The area of responsibility for this role is very wide and thus requires thorough knowledge of various company processes. The ideal candidate must be competent and able to plan many different kinds of operational activities. He/She must be an excellent leader who can discover the most efficient ways to run the business.

The goal is to safeguard and augment the efficiency of the company's operations to facilitate accelerating development and long-term success.

Credit Manager:-

A Credit Manager, or Collections Manager, protects a company's assets and oversees the credit granting process. Their main duties include assessing potential customers' creditworthiness, conducting reviews of existing customers and optimizing company sales.

CIBIL Module:-

In this Module, the Operational Executive checks the cibil score of particular applied person by entering the pan id of the applied person or checks any history of that person in the database. This gives the information about the person's cibil score, personal information, contact information, employment information, account information, loan enquiry information, persons existing loans if any. This cibil report also gives the information about check bounce, ecs bounce, ecs bounce on date payment, fourth closed loan, ecs bounce late payment. This helps the manager to check out the persons cibil score which tells the institution how likely the applicant pay back a loan based on past credit usage and loan repayment behavior. High credit score leads to the eligibility for particular loan and Low credit score leads to rejection for particular loan.

OPERATING ENVIRONMENT – HARDWARE AND SOFTWARE

Hardware Requirements:

- Processor : Intel core i3
- Memory size : 8 GB RAM Storage : 64 GB Hard Disk
- Display : EGA/VGA Color Monitor, 600 x 800 Pixels Resolution, High Color
- Internet Connection : Required
- Key Board : Any with minimum required
- Keys Mouse : Any

Software Requiremens :

Requirements for Client :

- Processor : Intel core i3
- Memory size : 8 GB RAM Storage : 64 GB Hard Disk
- Display : EGA/VGA Color Monitor, 600 x 800 Pixels Resolution, High Color
- Internet Connection : Required
- Key Board : Any with minimum required
- Keys Mouse : Any

DETAIL DESCRIPTION OF TECHNOLOGY USED JAVA:

JAVA 8 is a major feature release of JAVA programming language development. Its initial version was released on 18 March 2014. With the Java 8 release, Java provided supports for functional programming, new JavaScript engine, new APIs for date time manipulation, new streaming API, etc.

FEATURES OF JAVA:

1. Lambda expression – Adds functional processing capability to Java.
2. Method references – Referencing functions by their names instead of invoking them directly. Using functions as parameter.
3. Default method – Interface to have default method implementation.
4. New tools – New compiler tools and utilities are added like 'jdeps' to figure out dependencies.
5. StreamAPI – New stream API to facilitate pipeline processing.
6. Date Time API – Improved date time API.
7. Optional – Emphasis on best practices to handle null values properly.
8. Random -Random numbers within a specific range of type integer, float, double, long, and boolean can be generated in Java.

HIBERNATE:-

Hibernate is a Java framework that simplifies the development of Java application to interact with talk to the database. It is an open source, lightweight, ORM (Object Relational Mapping) tool. Hibernate implements the specifications of JPA (Java Persistence API) for data persistence. Following are the advantages of hibernate.

Webservice:-

A Web Service is can be defined by following ways:

It is a client-server application or application component for communication.

The method of communication between two devices over the network.

It is a software system for the interoperable machine to machine communication.

It is a collection of standards or protocols for exchanging information between two devices or application.

Let's understand it by the figure given below:

web services

As you can see in the figure, Java, .net, and PHP applications can communicate with other applications through web service over the network.

For example, the Java application can interact with Java, .Net, and PHP applications.
So web service is a language independent way of communication.

framework:-

- 1) Open Source and Lightweight Hibernate framework is open source under the LGPL license and lightweight.
- 2) Fast Performance The performance of hibernate framework is fast because cache is internally used in hibernate framework. There are two types of cache in hibernate framework first level cache and second level cache. First level cache is enabled by default.
- 3) Database Independent Query HQL (Hibernate Query Language) is the object-oriented version of SQL. It generates the database independent queries. So you don't need to write database specific queries. Before Hibernate, if database is changed for the project, we need to change the SQL query as well that leads to the maintenance problem.
- 4) Automatic Table Creation Hibernate framework provides the facility to create the tables of the database automatically. So there is no need to create tables in the database manually.
- 5) Simplifies Complex Join Fetching data from multiple tables is easy in hibernate framework
- 6) Provides Query Statistics and Database Status Hibernate supports Query cache and provide statistics about query and database status.

MySQL:

MySQL is a relational database management system based on SQL – Structured Query Language. The application is used for a wide range of purposes, including data warehousing, e-commerce, and logging applications. The most common use for MySQL however, is for the purpose of a web database. MySQL is not a programming language. Instead, it is a relational database management system (RDBMS). It is used to store data, not to write programs. The SQL programming language can be used to program a MySQL database.

MAVEN:

Maven is an automation and management tool developed by Apache Software Foundation. ... In Yiddish language the meaning of Maven is “accumulator of knowledge”. It is written in Java Language and used to build and manage projects written in C#, Ruby, Scala, and other languages. Maven is a powerful project management tool that is based on POM (project object model). It is used for projects build, dependency and documentation. It simplifies the build process like ANT. ... In short terms we can tell maven is a tool that can be used for building and managing any Java.

SPRING BOOT:

Spring Boot is an open source Java-based framework used to create a micro Service. It is developed by Pivotal Team and is used to build stand-alone and production ready spring applications.

Spring Boot is basically an extension of the spring framework which eliminated the boilerplate configurations required for setting up a spring application.

Spring Boot is a lightweight framework that takes most of the work out of configuring Spring-based applications. In this tutorial, you'll learn how to use Spring Boot's starters, opinions, and executable JAR file structure to quickly create Spring-based applications that “just run”.

Spring Boot Rest API ExampleWriting Restful services in Spring Boot is no-different than Spring MVC. If you are a REST Client [Rest Consumer], Spring Boot provides Rest Template Builder that can be used to customize the Rest Template before calling the REST endpoints.

ANGULAR :

Angular is an application design framework and development platform for creating efficient and sophisticated single-page apps.

These Angular docs help you learn and use the Angular framework and development platform, from your first application to optimizing complex single-page apps for enterprises.

FEATURES AND BENEFITS:--

CROSS PLATFORM

1. Progressive Web Apps Use modern web platform capabilities to deliver app-like experiences. High performance, offline, and zero-step installation.
2. Native Build native mobile apps with strategies from Cordova, Ionic, or Native Script.

3. Desktop Create desktop-installed apps across Mac, Windows, and Linux using the same Angular methods you've learned for the web plus the ability to access native OS APIs.

PRODUCTIVITY

1. Templates Quickly create UI views with simple and powerful template syntax.
2. Angular CLI Command line tools:
start building fast, add components and tests, then instantly deploy.
3. IDE's Get intelligent code completion, instant errors, and other feedback in popular editors and IDEs.

SPEED AND PERFORMANCE

1. Code Generation Angular turns your templates into code that's highly optimized for today's JavaScript virtual machines, giving you all the benefits of hand-written code with the productivity of a framework.
2. Code Splitting Angular apps load quickly with the new Component Router, which delivers automatic codesplitting so users only load code required.

Proposed System

The proposed software will solve all the problems they are facing now. Loan is still perceived as a huge burden for many countries. While loans are known to take off that burden off, it still gives nightmare to people and they avoid availing a loan. However, a loan can be a solution to many of your financial problems. A Microfinance helps you purchase a Vehicle ,Personal loan or Goods of your choice and pay for it in equated monthly installments (EMIs). Car loans are available for both salaried and selfemployed individuals. Bank provides Car Loan loans on easy terms. You will come to us where our representative will help you complete the formalities and inform you if you are eligible for a loan on the spot. Once your loan application has been approved you can get your loan amount in short period of time.

Purpose of proposed system

- Interest rates and the loan details are also available at the click of a mouse.
- Customer can apply for a loan and after approved it they can track their details from online.
- This system provides detail about the customers, their loan details, EMI details and its rate details.
- System provides download option to download different type of loan form in MS word document.
- Using with this system admin can find customer easily and it's a paperless system so workload is reduced.
- The decision process becomes faster and more consistent.
- After registration and login customer can use the system easily and also customer can view any query about loan details as well as EMI details in their profile. So this system saves time.

- Provides good communication for the customer.
- In this system there are used EMI (Equated Monthly installment) calculators.
- Provides a facility to generate the reports very.

Advantages of the proposed System

- Entire activities of the show room are recorded through the system.
- Customer Data is maintained.
- Reports generated will be more useful for management to take the quick business decisions.
- Customer database is maintained which will be helpful for intimating the service completion details and new offers.
- Customer follow-ups are maintained which will be an added advantage of this system
- It helps with your CIBIL Score as CIBIL or Credit Scores are a summary of customer history in loan credits and repayments over a period of time

Objectives of System

The past several decades personnel function has been transformed from a relatively obscure record keeping staff to central and top level management function. There are many factors that have influenced this transformation like technological advances, professionalism, and general recognition of human beings as most important resources. A computer based management system is designed to

handle all the primary information required to calculate monthly statements of Customer Record which include monthly statement of any month. Separate database is maintained to handle all the details required for the correct statement calculation and generation. This project intends to introduce more user friendliness in the various activities such as record updating, maintenance, and searching. The searching of record has been made quite simple as all the details of the Customer can be obtained by simply keying in the identification of that Customer. Similarly, record maintenance and updating can also be accomplished by using the identification of Employee with all the details being automatically generated. These details are also being promptly automatically updated in the master file thus keeping the record absolutely up-to-date. The entire information has maintained in the database or Files and whoever wants to retrieve can't retrieve, only authorization user can retrieve the necessary information which can be easily be accessible from the file. The main objective of the entire activity is to automate the process of day to day activities of pay.

User Requirements Module:-

- Relational Executive
- Operational Executive
- Credit Manger
- Finance Head
- Disbursement officer

Relational Executive:

Relational executives identify and pursue business relationships with corporate and business unit executives. They create new business opportunities through customer relationships, while also providing value to customers through professional services agreements and solution sales. Relationship executives also establish strategic relationships with internal departments, including sales, marketing and business development teams. They use their internal and external relationships to develop sales strategies and service offerings that enable new opportunities for business and revenue growth.

Operational Executive:

The Operations Executive is responsible for the part of the workplace team that directly manages the operations and maintenance of facilities. The Operations Executive can report to various parts of the company such as the Facilities Executive, Chief Financial Officer or Chief Operations Officer, but usually has direct access to senior management. On the basis of the submission of the required details & documents, the financial institution will analyze the application. From existing residential address to CIBIL score, complete information is thoroughly checked. Once the bank has validated all the details, loan amount is sanctioned.

Credit Manager:

Credit managers are responsible for overseeing the credit granting process for a company. Their job is to optimize company sales and reduce bad debt losses by maintaining the credit policy. They do this by assessing the creditworthiness of potential customers and conducting periodic reviews of existing customers. CM verify all the document one by one. Is all the document is verified

then CM send a sanction letter or the OE. Then OE insert the sensation letter and send a mail to the customer that his loan his sanctioned and one main to the disbursement department.

Finance Head

It is essentially made up of two parts, the principal amount and the interest on the principal amount divided across each month in the loan tenure. The EMI is always paid up to the bank or lender on a fixed date each month until the total amount due is paid up during the tenure.

Disbursement Officer

Account head once credit Manager approved the loan And decide sanction loan amount then account head view that sanction loan Amount and sanction tenure period
Once every thing ok and verified he can disbursed sanction loan amount to property builder account

Emi Tracker:-

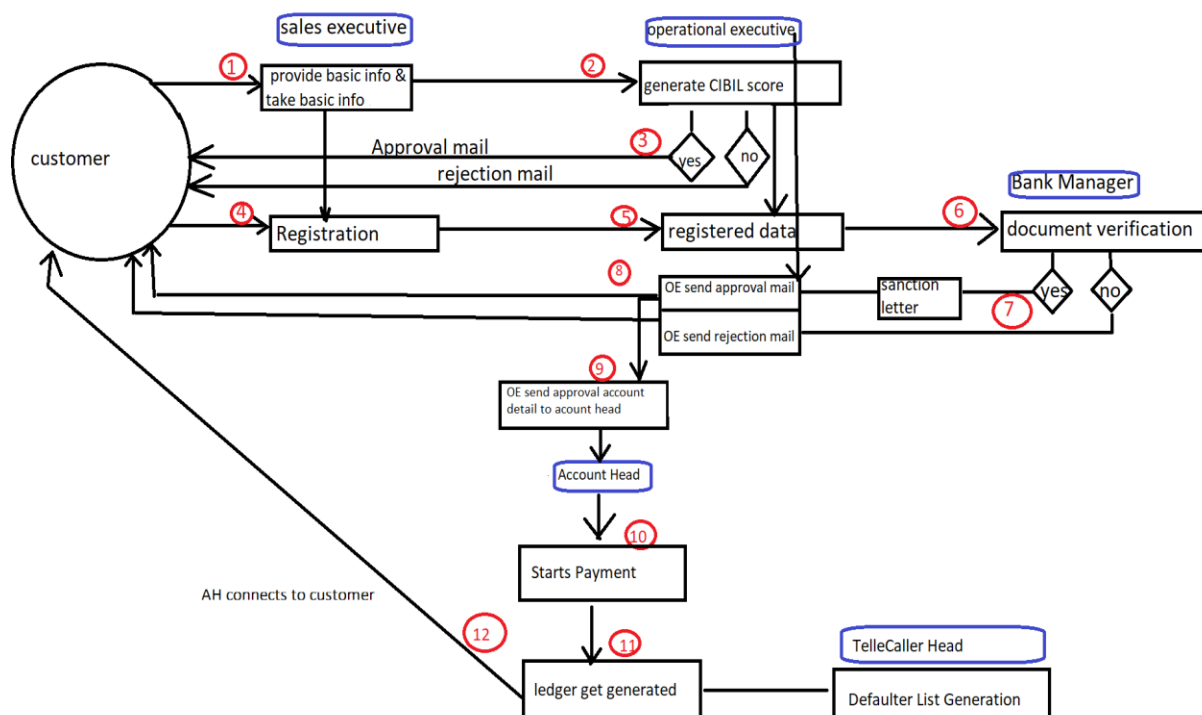
Finance Head check Dafaulter and send to Third party as Telecom department inform to User Customer to paid amount Emi properly on d

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DATA FLOW:-

- RE-Enquiry
- OE-Check Cibil Score
- Cibil Score will good then go to RE
- RE Take Document from user
- User will Give all needed Document to RE
- RE send information Credit manager
- Credit manager check User Document
- Credit manager see previous loan detail if its status is satiesfied and that status according sanction letter will generate by account head
- Account Head check all the details .
- Set sanction amount and ROI according their loan type.
- After that sanction will release and forward to bankmanager
- Bankmanager check all details properly and disbursed sanction amount to the customer
- Generate ledger in PDF anf Excel format.
- According to ROI and Sanction amount all the EMI display with its future dates with EMI.

Step 1: Fill the Enquiry details

In the very first step, the applicants need to fill up an application form of their desired bank with all the vital particulars such as their personal details and other required credentials.

- Name of the applicant
- Current residential address
- Contact number
- Pancard
- Email
- Employment details
- check your eligibility with each of the banks. Choose the right car loan with a bank of your choice. Make sure you are eligible for the loan before applying so that your application is not rejected.

Documents attachment

- Identity proof
- Address proof
- Income proof
- Age proof
- Photo

Step 2: Cibil Check and approval mail

The cibil score of an applicant is a measure for the bank to decide how well-deserving the candidate is for a loan. If you have a habit of maintaining your financials and meeting your financial commitments timely, you are less likely to default on a loan. Therefore you are a good candidate for a loan. A cibil score above 650 is considered good enough for a car loan.

After filling enquiry details cibil score will be checked .If cibil is within range approval mail will be sent to customer, otherwise rejection mail will be sent.

Step 3: Registration of Customer

Fill all the loan related details here. Declare field mentioned compulsory to apply electric car loan.

Step 4: Document verification

To verify customer bank accounts in person, they must go to a branch or commercial office and ask to open a bank account. There, an agent will carry out the necessary checks on the account holder (identity, copy of ID card or passport, address, that they are not on any list of fraudulent persons, etc.) and will open the bank account after verifying that the details provided are valid.

Step 5 : Car Loan Approval

If the bank finds all the document valid and find the borrower to be capable of paying the loan EMIs on time, they will approve the loan amount within a short duration of 2 days.

Factors of Car Loan Approval:-

- Your income
- Your cibil score
- Your age
- Your current employment status
- Your existing debt obligations
- Your property details (like construction status, age, etc.)

Step 6: Car Loan sanction letter

The car loan sanction letter acts as proof of meeting the lender's loan eligibility and contains crucial components like home loan amount sanctioned, rate of interest, loan repayment tenure, estimated EMI, and

more. Once you receive the home loan sanction letter, it guarantees that your loan amount is approved, but the loan disbursal is yet to happen.

It Has Multiple Details Included:-

- total sanctioned home loan amount
- loan repayment tenure
- home loan interest rate provided (fixed or floating)
- mode of loan repayment
- the validity of the letter
- EMI details, etc.
- Other crucial terms and conditions

Step 7: Loan disbursal

Once the bank completes the property verification, it will start drafting your home loan agreement along with all the agreed terms and conditions. You will have to sign the home loan agreement. After you sign the agreement and clear all other formalities, you will get the loan amount in your account.

Car Loan Documents Checklist

1. Completed and signed car loan application form

2. Latest passport size photographs

3. Identification proof (at least one proof required)

- Aadhar Card
- Driving License
- PAN
- Passport
- Voter ID
- Signature
- Thumb

4. Residence proof (at least one proof required)

- Utility bills (like Telephone bill, electricity bill, water bill)
- Ration card
- Passport
- Bank statement with your address or Passbook
- Employment letter
- Voter ID

5. Age proof (at least one proof required)

- Birth certificate
- Driving License
- PAN
- Aadhar Card
- Passport
- Passbook

6. Income documents

For salaried individuals:

- Copy of Form-16
- Copy of the latest Income Tax returns
- Latest Salary slips

- Salary increment letter (if any)

For self-employed individuals:

- Bank account statement
- Latest Balance Sheet and P&L statement
- Copy of Income Tax returns
- Proof of business address
- Copy of Form-16A (if applicable)
- Certificate of qualification (required for professionals like C.A., Doctor, etc.)
- Details of business license.

7.Property documents

- Sale deed or agreement to sell
- NOC (no objection certificate) from the builder or society
- Construction cost estimate
- Receipts of property tax paid
- Receipts of tax paid for land/building
- Receipt of any payment made in advance to builder
- Approved building plan

How your cibil score is calculated?

There are four key factors that impact your CIBIL score:

1. **Payment history:** Making late payments or defaulting on your EMIs has a negative impact on your score.
2. **Credit mix:** Having a balanced mix between secured loans and unsecured loans is likely to have a positive impact.
3. **Multiple enquiries:** Too many loan enquiries may have a negative impact on your score as it indicates that your loan burden may go up in the future.
4. **High credit utilisation:** A high credit utilisation limit indicates a rising debt burden over time and may negatively impact your score.

Table Specification:

Table Name :EnquiryTable

Primary Key: eld

Sr no.	Main Table	PojoClass	Fields	DataType	SubTable	Relationship
1			eld	int		
	Enquiry	EnquiryDetails	firstName	String		
			lastName	String		
			age	int		
			email	String		
			mobilen	long		
			pancardNo	String		
					cibil	OneToOne

Secondary class: Cibil table

Sr.no	PojoClass	Fields	DataType
1.2		cibilId	int
	OneToOne	cibilScore	int
		cibilStatus	String
		cibilRemark	String

Table Name: Customer Details

Primary Key: cld

Sr.no	Main Table	PojoClass	Fields	DataType	Sub Table	Relationship
			cld	int		
2			cname;	String		
			status	String		
	Customer	CustomerDetail	email	String		
					currentloandetails	OneToOne
					customerverification	OneToOne
					accountdetails	OneToOne
					sanctionletter	OneToOne

Table Name: Current Loan Details (Secondary)

Primary Key: loanId

Sr.no	PojoClass	Fields	DataType	Sub Table	Relationship
2.1		loanId;	int		
	CurrentLoanDetails	loanAmount	double		
		loanRoi	double		
		loanTenure	int		
		loanAmounttobePaid	double		
		sanctionAmount	double		
				emicalculator	OneToOne
				previousloandetails	OneToOne

Table Name: Emi Calculator (Secondary)

Primary Key: emild

Sr.no	PojoClass	Fields	DataType
		emild	int
2.1.1	Emi Calculator	cid	int
		emiAmount	float
		EmiDate	LocalDate
		EmiStatus	String
		emino	int
		balanceAmount	float

Table Name: PreviousLoanDetails (Secondary)

Primary Key: preloanId

Sr.no	PojoClass	Fields	DataType
		preloanId	int
2.1.2	PreviousLoanDetails	preloanAmount	double
		preloanTenure	int
		preloanEmi	double
		preloanPaidAmount	double
		preloanRemainingAmount	double
		preLoanType	String
		preLoanType	String

Table Name: Account Details (Secondary)

Primary Key: accountid

Sr.no	PojoClass	Fields	DataType
		accountid	int
2.2	AccountDetails	accounttype	String
		accountbalance	double
		accountholdername	String
		accountstatus	String
		accountnumber	long

Table Name: SanctionLetter (Secondary)

Primary Key:

Sr.no	PojoClass	Fields	DataType
		sanctionId	int
2.3	SanctionLetter	cId	int
		tenure	double
		rateofInt	double
		customerTotalLoanRequired	double
		bankName	String
		accountNumber	int
		sanctionAmount	double

Table Name : Document

Primary Key: documentId

Sr.no	Main Table	PojoClass	Fields	DataType
			documentId	int
3			customerId	int
			customerName	String
	Document	Document	adharcard	byte
			pancard	byte
			signature	byte
			photo	byte
			incomeProof	byte