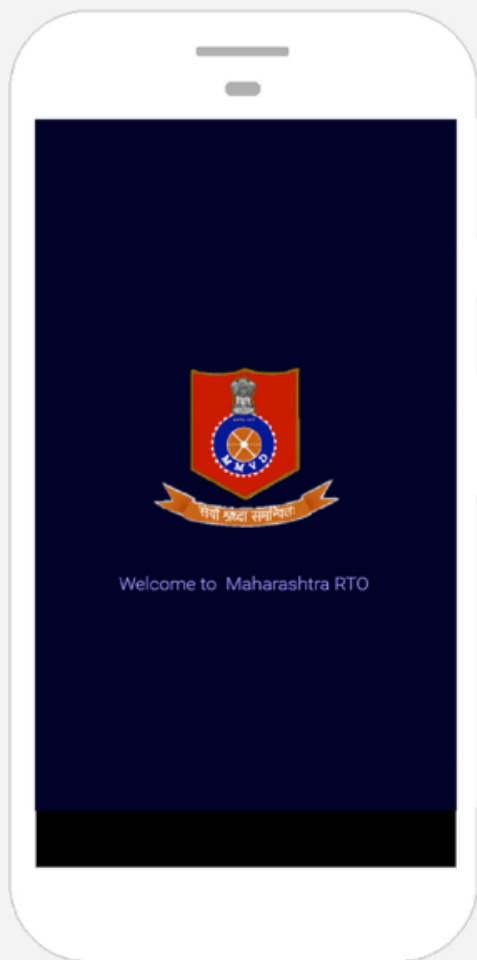


Guiding Tool for RTO Applicants



Ajinkyaraj More
IxD Student
M.Des (2015-2017)

Prof. Jayesh Pillai
Guide

IDC School of Design
IITB, Mumbai.

Problem statement

To get any document, certificates, apply for id proof or pan card it includes many steps.
Instructions / procedure given by government are not clear enough to understand people in one attempt.
And it is extremely time consuming in most cases.



Aim

- Designing an online portal to reduce the **time** taken and **stress** involved in application for a Driving License.
- The aim is to reduce the interference of third party mainly brokers in completing the task, as many of the process are not well known to the public, and to make people self-sufficient.

Focus

Develop a **self explanatory** platform and guide for RTO applicant by giving **clear instructions, online tracking and FAQ** at every stage.

Target User

- Anyone applying for a Driving License Who has basic knowledge about **reading and writing**.
- People who have **smart phones**.

Motivation

Passport Application

Required Documents

Instructions not clear

Motivation

Passport Application

Required Documents

Instructions not clear

Birth Certificate

Alternative certificate

Migrated people

Long distance

Motivation

Passport Application

Required Documents
Instructions not clear

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Alternative certificate
Migrated people
Long distance

Driving License

Waisting for Driving License
for 5 months

Motivation

Passport Application

Required Documents
Instructions not clear

Birth Certificate

Alternative certificate
Migrated people
Long distance

Driving License

Waisting for Driving License
for 5 months

Online news paper

Motivation

Online news paper

Applying for a driving licence in Mumbai? Prepare for a long wait

Kailash Konde, Hindustan Times, Mumbai | Updated: Feb 17, 2015 21:59 IST



If you are planning to apply for a driving licence in Mumbai, be prepared for a long wait.

Believe it or not, those who applied for permanent driving licences for four-wheelers at the Andheri RTO on Tuesday were given appointments for August 16. This means they have to wait for six months to appear for their driving tests.

The minimum gap between date of application and date of appointment for permanent driving licences is two-three months at all three RTOs in the city, while the same for learning licences is two months.

According to sources in motor training schools, the earliest available appointments for

Unfriendly website drives many to RTO agents for learner's licence

Sujit Mahamulkar | TNN | Mar 9, 2015, 04:20 AM IST



To did a test run on the online registration process for learner licence. And the experience was indeed frustrating – our correspondent was unable to complete the registration process although trying it on two successive days. Here's his first person account.

Home > Mumbai



Going to RTO without an agent? Don't even think of making that mistake

After being barred from the Andheri RTO on Monday, agents protested at its entrance; the scene replicated itself at the gates of all the RTOs across the city (Abhinav Kocharekar)

Secondary Research

Government Web Portals

Licence		Registration		Permit		Taxation		Offences & Penalties		Transfer & NOC	
Home Government Sites FAQ Login Email Important circulars											
<h1 style="text-align: center;">Motor Vehicle Department, Maharashtra</h1>											
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>About Us</p> <ul style="list-style-type: none"> Organization Chart Offices Statistics Complaint Against Illegal Horn/Siren Act & Rules Govt Resolutions RTI REFUND Maharashtra Transport Act-Draft </div> <div style="width: 45%; text-align: center;"> Shri. Diwakar Raote Hon. Transport Minister, Maharashtra State </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Instruction for wearing helmet</p> <p>Maharashtra City Taxi Rules 2016</p> <p>Notifications / GR</p> <p>Instructions for Learning License Appointment for Kalapur Office</p> </div> <div style="width: 45%; text-align: center;"> Shri. Vijay Deshmukh Hon. Minister of State for Public Works (Public Undertakings), Transport, Labour, Textiles, Maharashtra State </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>महाराष्ट्र शासनचे परिवहन विभाग प्राप्त बाबत कालपुरा विभाग फेब्रुवारी महिने</p> <p>Seniority List</p> <p>Tender Notice</p> <p>Taxi / Auto Rickshaw Fares / Stands</p> <p>Electronic Meters</p> <p>Taxi / Auto Rickshaw Compliant Redresso</p> <p>Public Grievance</p> <p>News</p> <p>Department Manual</p> </div> <div style="width: 45%; text-align: center;"> Shri. Sudhir Shrivastava , IAS Additional Chief Secretary-Transport Maharashtra State </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>LICENCE RELATED WORK (click here)</p> </div> <div style="width: 45%; text-align: center;"> R T O Help Desk </div> <div style="width: 45%;"> <p>VEHICLE RELATED WORK (click here)</p> </div> </div>											

Taxi / Auto Rickshaw Permit Release

RTI Taxi Permit Information

Message From

Non-Ministers & State Ministers

ACS (Transport)

Transport Commissioner

Appointment for Learning/Permanent License

Learning Licence Practice Test

Learning Licence Question Bank

Road Signs

Road Safety Campaign - 2015

KIU Complaints

KIU

Hurry leads to mistakes, mistakes leads to accidents

Maharashtra RTO Website

Private Web Portals

Online Appointment For Learner License – RTO Mumbai

Mumbai77 > Travel Guide > Online Appointment For Learner License – RTO Mumbai (Modified on April 05, 2016 at 3:42 pm.)

Driving Licence

Owning a car or a two wheeler has become a quintessential part of the modern city dwellers life. Growing population and inadequate public transportation facilities have forced people to turn to their own motor vehicles. But it is not enough if you just own a motor vehicle, to ride a motor vehicle on Indian roads you must be licensed. Yes, you must possess a driving license in India to legally take your motor vehicles on roads. Read on to find more about driving license and how to apply for a driving license in India.

- Brief on Driving Licence India
- Types of DL in India
- Eligibility for Driving License in India
- Document Required for Driving License
- How to Apply for a Driving License in RTO or Offline in India?
- Test Procedure for Driving License in India
- International Driving Permit (IDP) in India
- Why do you need a Driving License in India?
- FAQs on Driving Licence

Proposed Amendments in Various Penalties under Motor Vehicle Amendment Bill - 2016

Section	Old Provision / Penalty - 2014	New Proposed Amendment (2016) / Minimum Penalties	
107	General	₹100	₹200
New 107 A	Penalty for repeat violation	₹100	₹300
108	Excess speed limit	₹200	₹300
109	Exceedance of order of vehicles	₹100	₹1,000
100	Exceedance of order of vehicles	₹1,000	₹1,000
101	Exceedance of order of vehicles	₹1,000	₹1,000
102	Exceedance of order of vehicles	₹1,000	₹1,000

Brief on Driving Licence India

A driving license is basically an official document issued by the Government of India, permitting individuals to operate or drive a motorised vehicle such as a car, motorbike, truck, bus, etc., on a public road, without any supervision. In India, a driving license is issued by the Regional Transport Authority (RTA) or Regional Transport Office (RTO) of that particular state. The Motor Vehicles Act of 1988 states that no individual without the Driving License is authorized to drive a motor vehicle in a public place.

Hence, if you wish to drive a motor vehicle like car or scooter on roads, you must first hold a valid driving license in India. If you are practising to drive a vehicle, you must first get a Learners License which will act as a provisional license and then must take a test to qualify for getting a Driving License. With the advent of online facilities that allow users to apply for a Driving License from the comfort of their homes, getting a driving license has become an easy task.

Types of DL in India

Depending on the class of the vehicle, Indian applicants are awarded different driving licenses. Also, the eligibility criteria varies for driving licenses pertaining to different vehicle classes. Here are some of the popular vehicle classes for which a driving license can be obtained in India.

Vehicle Type	Driving License Class
Motorcycles with engine capacity of 50 cc or less than 50 cc	MC 50CC (Motorcycle 50 cc)
Motorcycles with gear, motorcycles with a capacity of 50 cc or more, Light Motor Vehicles (LMVs) including cars	MC EX50CC (Motorcycle more than 50 cc)
All Motorcycles types including Motorcycle with gear	MCWG or M / CYCLWG

Information about Driving License provided by private RTO Website

Case Study

लर्निंग लायसन्स मिळवण्यासाठीची आवश्यक माहिती

लर्निंग लायसन्स मिळवण्यासाठी आवश्यक लागणारी कागदपत्रे

- ☒ **रिजिस्ट्रारी दफ्त्या**
पासपोर्ट / आयकर / पॅन कार्ड / दौलतदारी बिल
   
- ☒ **जन्म दाखला**
राज्य लीकनरचा वापरात दिलेला डॉक्टरांनी स्वाक्षरी
करावला दाखला (आय. ए. ए. ऑ. युनिट)
 
- ☒ **२ पासपोर्ट आकाराचे फोटो**

- ☒ **सर्व कागदपत्रांच्या कोटी करिअर**

क्रमांक क्र.	क्रिया	अंदाजेन वेळ
1	सर्व कागद २ दिवसांनी आपले ३ मित्रांनी वेळ वाटवून घ्यावे मिळालेला २ नं. १११) वरून घ्याव्यात व मित्रांनी २ नं. १११) वरून घ्याव्यात व मित्रांनी २ नं. १११) वरून घ्याव्यात	२० ते २५ मिनिट
2	पोलीस ठाणे	२० ते २५ मिनिट
3	पोलीस ठाणे वर जाणे	१५ मिनिट
4	मार्ग अधिकारी यांच्याकडून अर्जासाठी लागणारी कागदपत्रे घेणे	२० ते २५ मिनिट
5	आयकराच्या ठिकाणी जाणे व जाणे	२० ते २५ मिनिट
6	आयकराच्या ठिकाणी जाणे व जाणे (आयकराच्या ठिकाणी जाणे व जाणे)	२० ते २५ मिनिट
7	आयकराच्या ठिकाणी जाणे व जाणे (आयकराच्या ठिकाणी जाणे व जाणे)	२० ते २५ मिनिट

Mftr - Motor Vehicle Inspector
RTO - Assistant Regional Transport Officer

परमनन्त लायसन्स मिळवण्यासाठीची आवश्यक माहिती

परमनन्त लायसन्स मिळवण्यासाठी आवश्यक लागूगरी कागदपत्रे

✓ वीथीवारी दाखला

कार्यवाही / विधान संघ / विधान कार्य / विधिकारित कर

✓ जन्म दाखला

जन्म अर्जावर्षाच्या दाखला किंवा डॉक्टरांचे दस्तऐवज
जन्मचा दाखला (जन्म ५, १, १, १, १, १)

✓ २ फायनोट ऑकारणचे फोटो

✓ सर्व कागदपत्रांच्या फोटो कॉपीस

✓ वर्कन नं. २ अधिकाऱ्याच्या सहकारी सह

क्रमांक क्र.	अडिग	लागणार क्र.
१	१. जन्म दाखला २. विधिकारित दाखला ३. डॉक्टरांचे दस्तऐवज ४. जन्म अर्जावर्षाच्या दाखला ५. डॉक्टरांचे दस्तऐवज ६. जन्म अर्जावर्षाच्या दाखला ७. डॉक्टरांचे दस्तऐवज	५० ते ५५ मिनिटे
२	१. जन्म दाखला २. डॉक्टरांचे दस्तऐवज ३. डॉक्टरांचे दस्तऐवज ४. डॉक्टरांचे दस्तऐवज ५. डॉक्टरांचे दस्तऐवज ६. डॉक्टरांचे दस्तऐवज ७. डॉक्टरांचे दस्तऐवज	५० ते ५५ मिनिटे
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४	१. जन्म दाखला २. डॉक्टरांचे दस्तऐवज ३. डॉक्टरांचे दस्तऐवज ४. डॉक्टरांचे दस्तऐवज ५. डॉक्टरांचे दस्तऐवज ६. डॉक्टरांचे दस्तऐवज ७. डॉक्टरांचे दस्तऐवज	५० ते ५५ मिनिटे
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आर. टी. ओ. हॉल (लायसन्स विभाग)

MMT - Maharashtra Motor Transport
MTO - Assistant Regional Transport Officer

Informative graphic board for RTO applicants

Primary Research

Primary Research

- Task based user test onducted with **5 user**.
- **With guide and without guide.**

Primary Research

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- **With guide and without guide**.

Users interviewed	24
Office staff interview	4
Private staff interviewed	2
Postman interviewed	1

Primary Research

- Task based user test conducted with **5 user**.
- **With guide and without guide**.

Users interviewed	24
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User test help to find out following points.

- Are user able to find out Driving License portal.
- User's Familiarity with computer and mobile device.

Primary and Secondary Research Findings

- Lack of proper in-site infrastructure
- Unnecessary **scattering of information**
- Unclear information
 - Unfriendly system
 - Longer in-between time
- There is a Lack of awareness about existing online application portals
- No status **tracking option**
- People waste their lot of time to do **inquiry**
- People are **scared to fill form.**

Primary and Secondary Research Findings

- Lack of proper in-site infrastructure
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- No status **tracking option**
- People waste their lot of time to do **inquiry**
- People are **scared to fill form.**
- People get **Influenced** by their friends to take help from Driving school and Agents.
- They think mediator will save their time.

Fees difference

via agent

1500

rupees

minimum and
it differs from
agent to agent

Themselves

323

rupees

Design Challenge

- **Information Architecture**
 - Cluttered information
 - Clear information (Process)
- **Giving information in peoples hand**
- **Bringing the transparency**

Design Decision

- Why Mobile **Web App**?

Mobile phones are used as a medium **to reach many users** as a web app.

Users are **comfortable** with mobile.

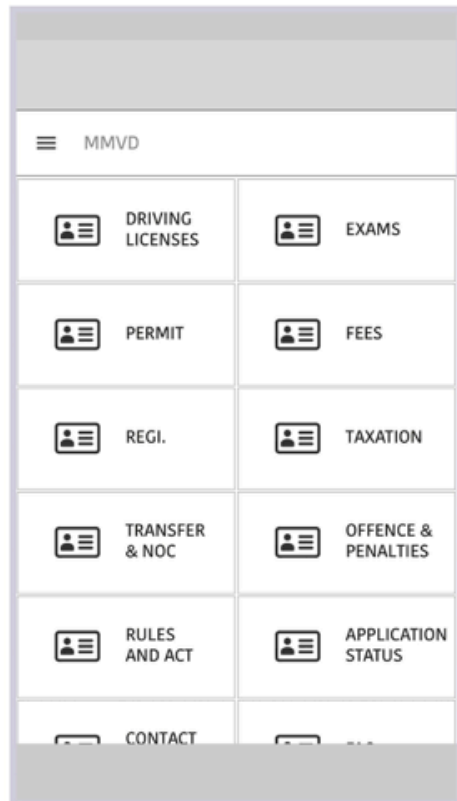
It will give **status** all time so they can use it in any situation.

One time user.

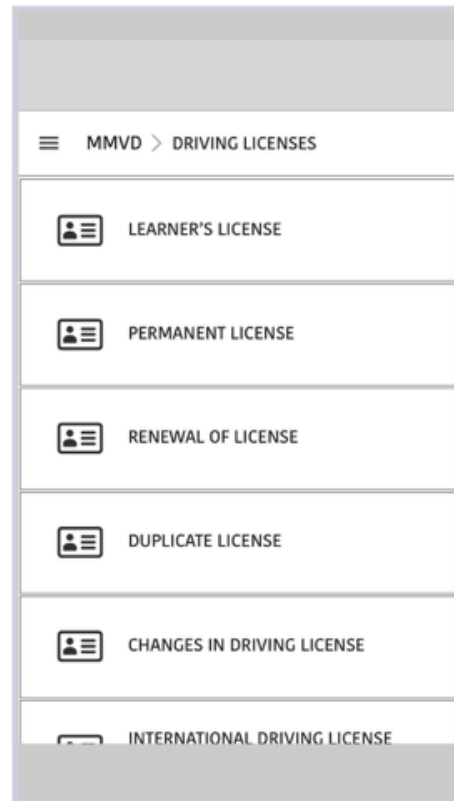
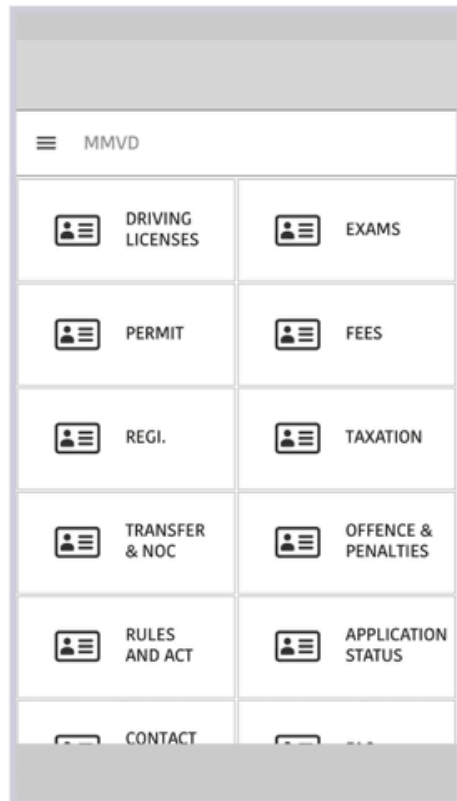
- Process shouldn't contain too much info. It should contain **essential information**
- Users need to know the **flow of information**.

Priliminary Design Idea

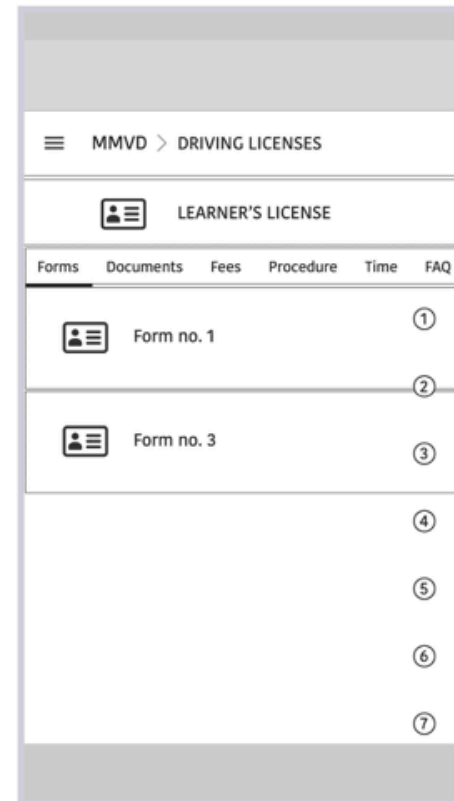
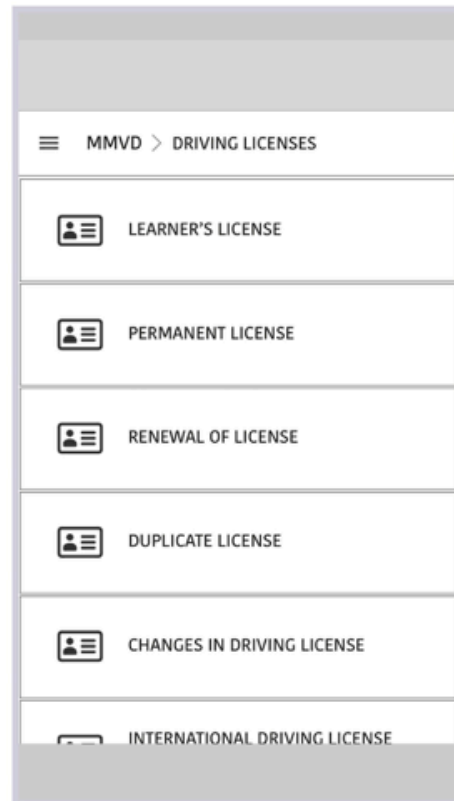
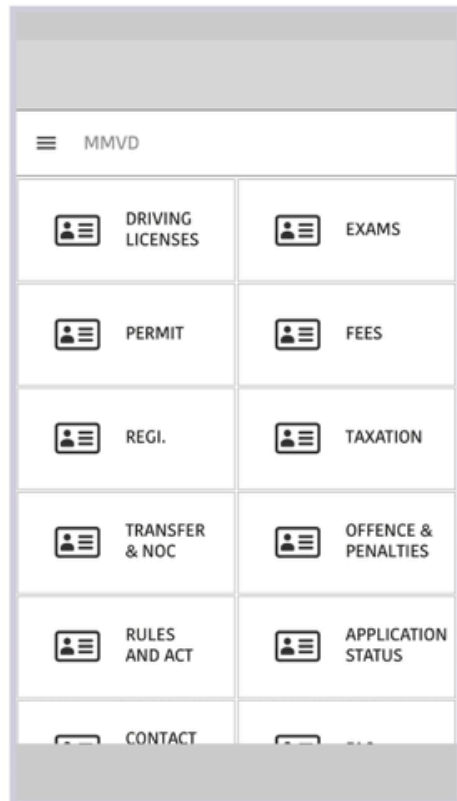
Paper Prototype



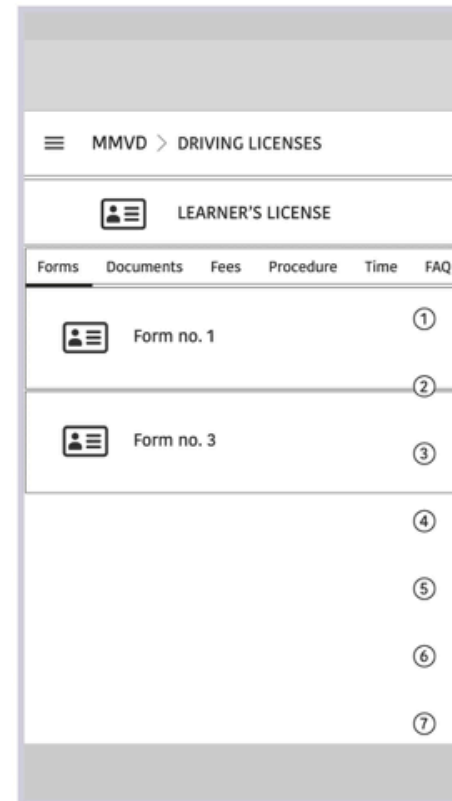
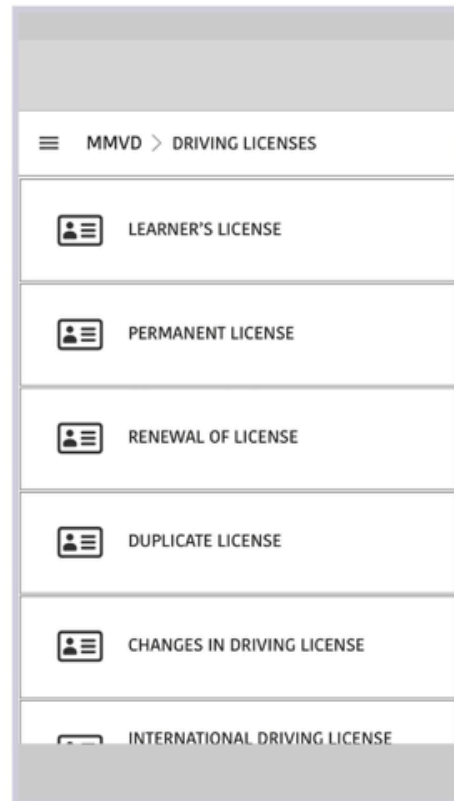
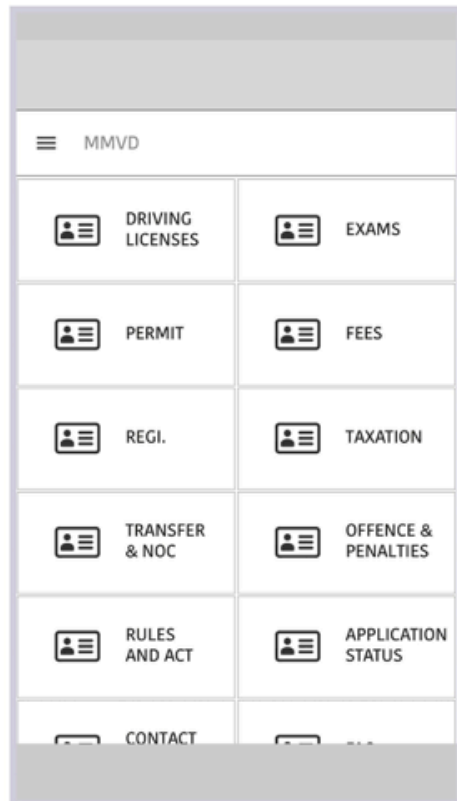
Paper Prototype



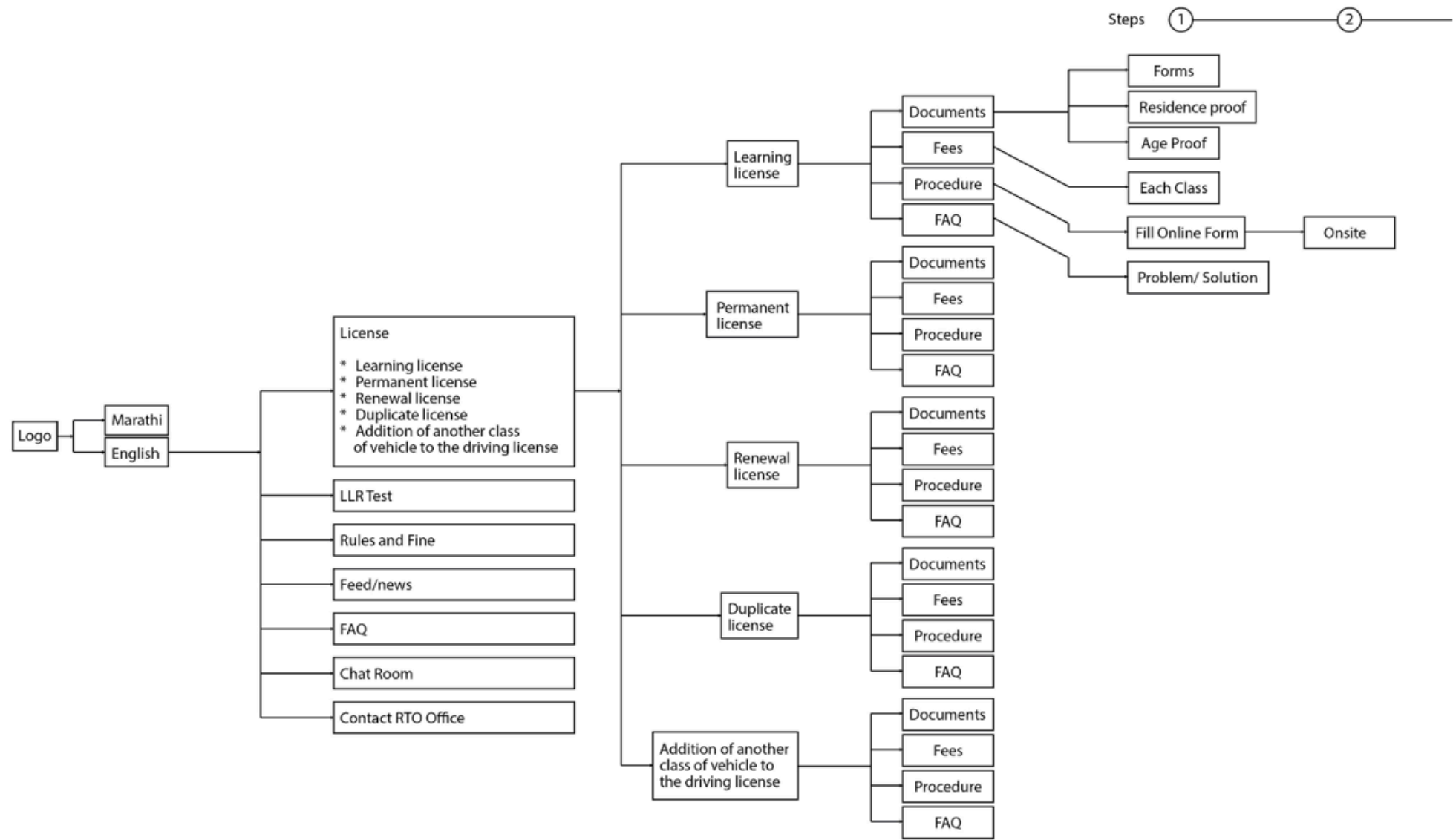
Paper Prototype



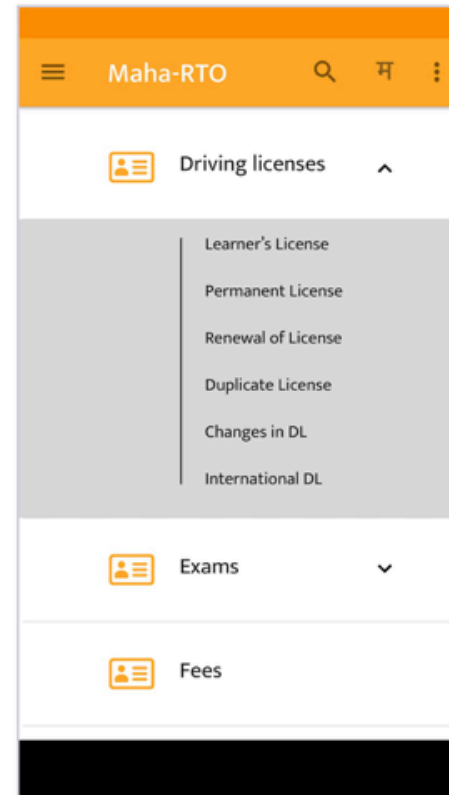
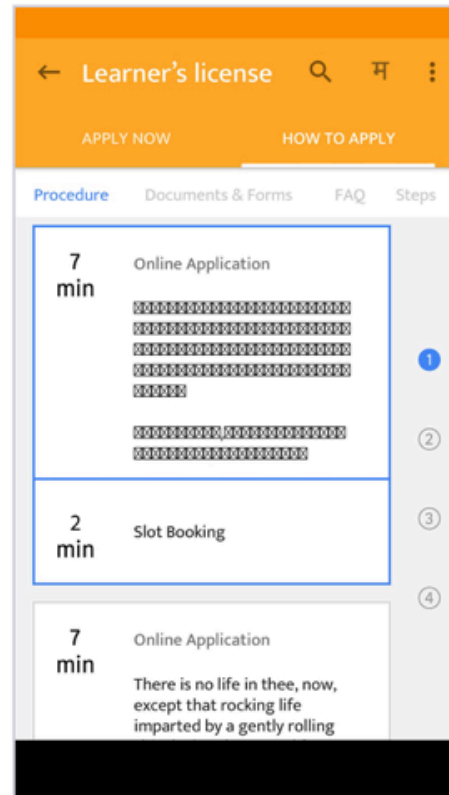
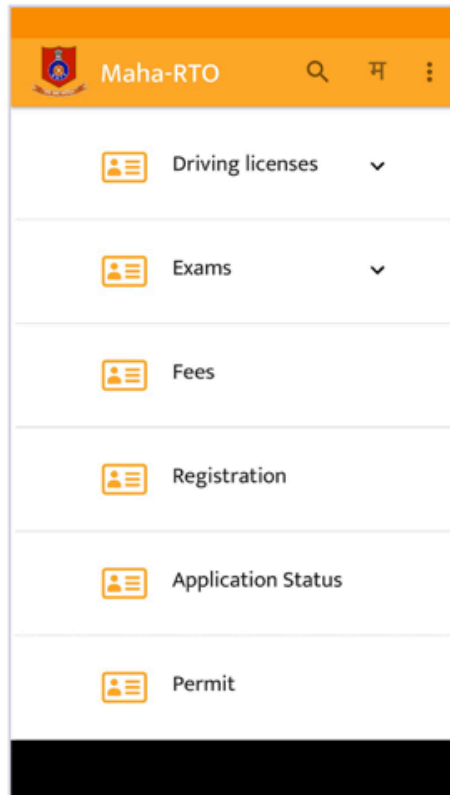
Paper Prototype



- Discused with classmates
- Difficult nevigation.



Working Prototype



Heuristic Evaluation

of Working Prototype

Goals

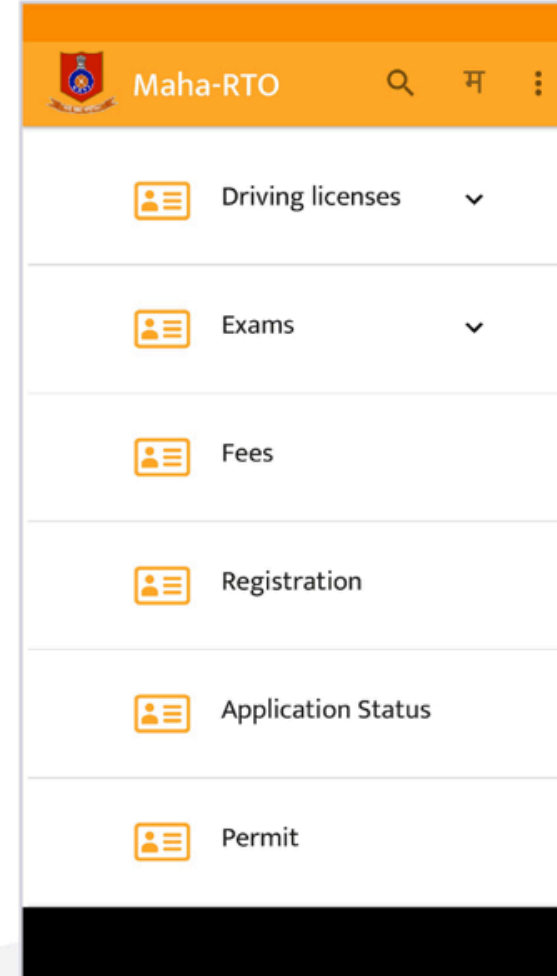
- People should **apply independently**
- Easily usable for **low tech savvy**
- Informative
 - Procedure
 - Detailed Application Status

Heuristic Evaluation

of Working Prototype

Findings

- **Too many options** on the landing screen.
No categorization of sorts.
- **Taxonomies** are not well defined in the application.
It can make user get lost in too much data.

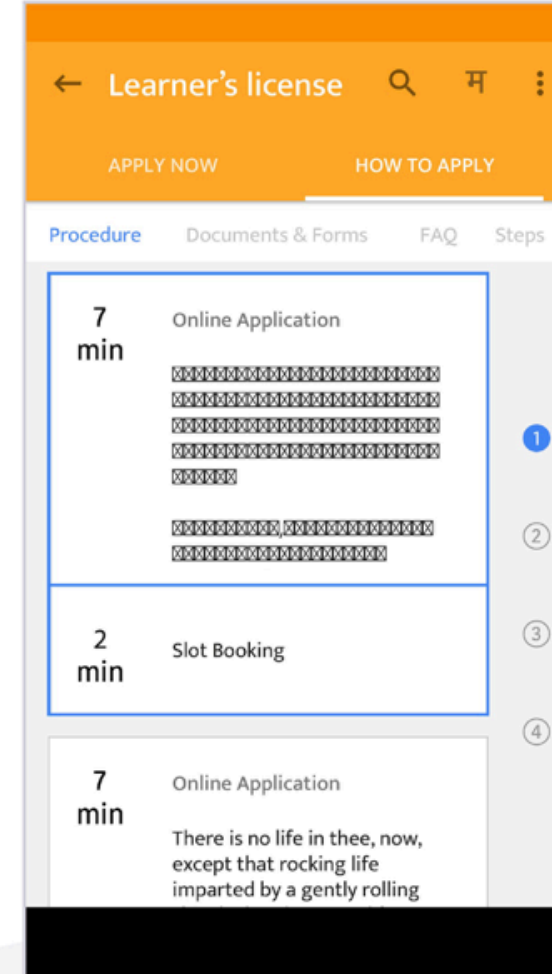


Heuristic Evaluation

of Working Prototype

Findings

- **Too many options** on the landing screen.
No categorization of sorts.
- **Taxonomies** are not well defined in the application.
It can make user get lost in too much data.
- **Too many hierarchies** which can cause user to **get confused** in the whole structure.
- The instructions, form elements are **too verbal**.



Final Design

Redefined Information Architecture

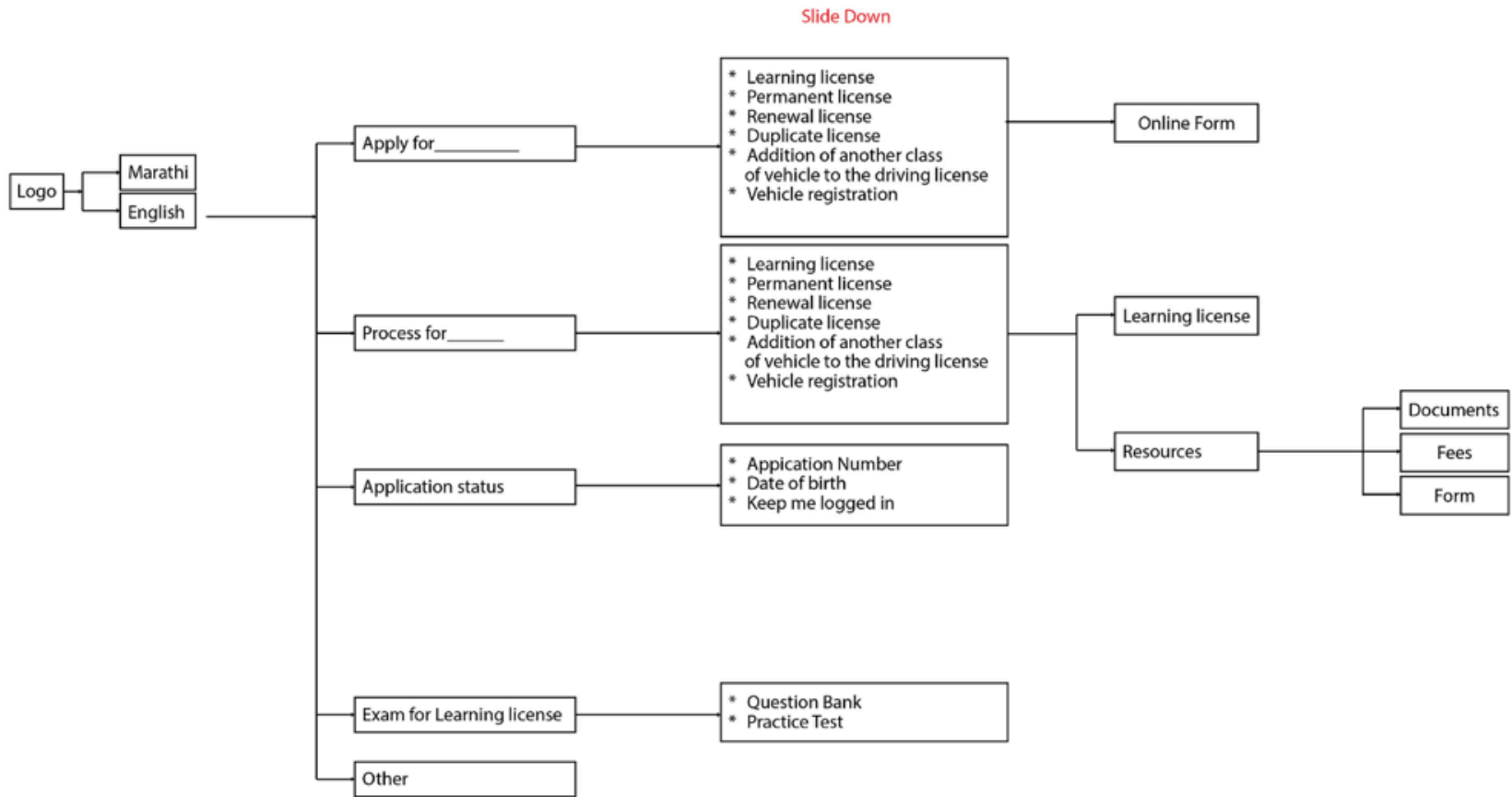
Launch

Main menu

Sub menu

Menu bar

Sub menu details



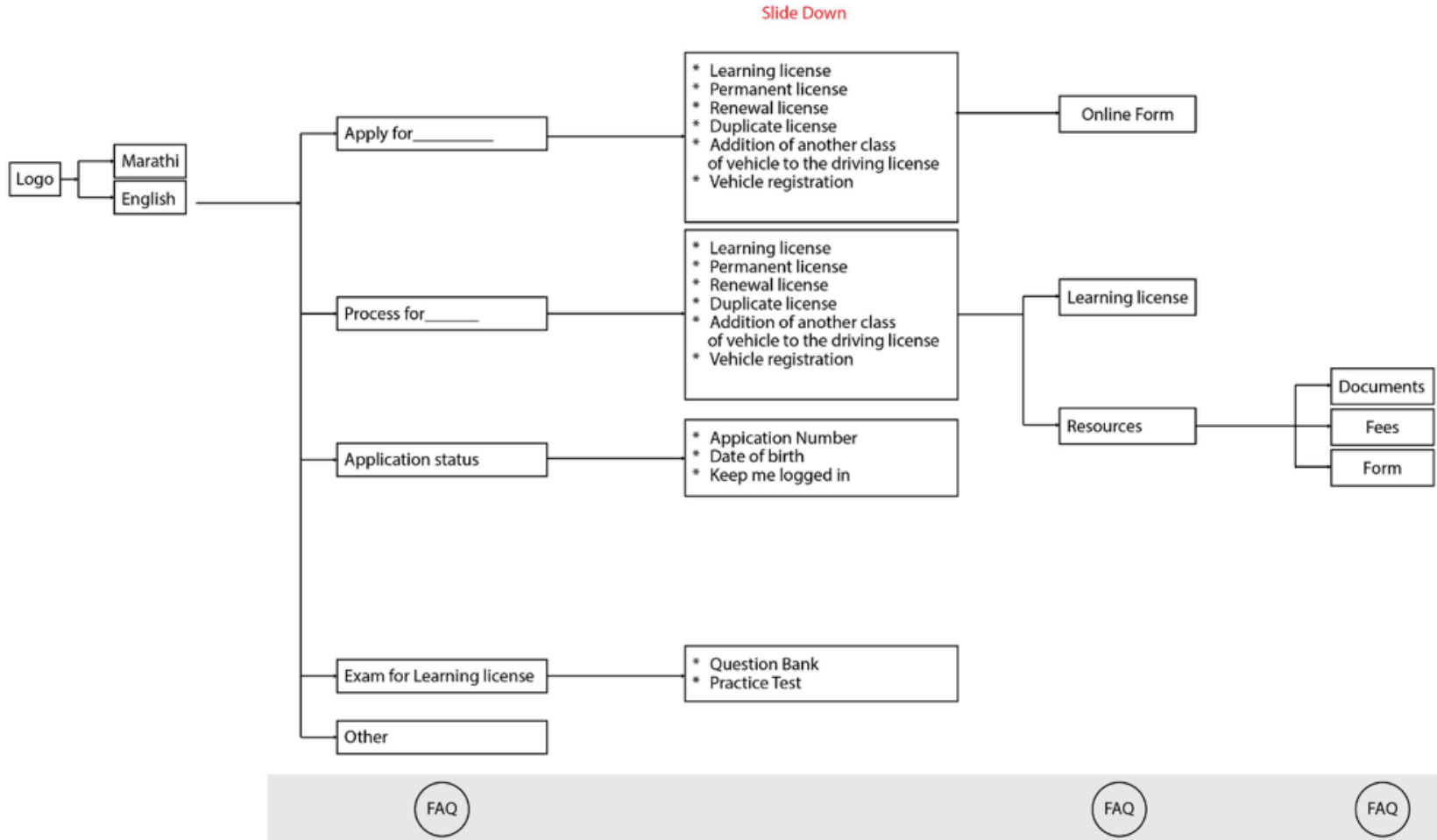
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Main menu

Sub menu

Menu bar

Sub menu details



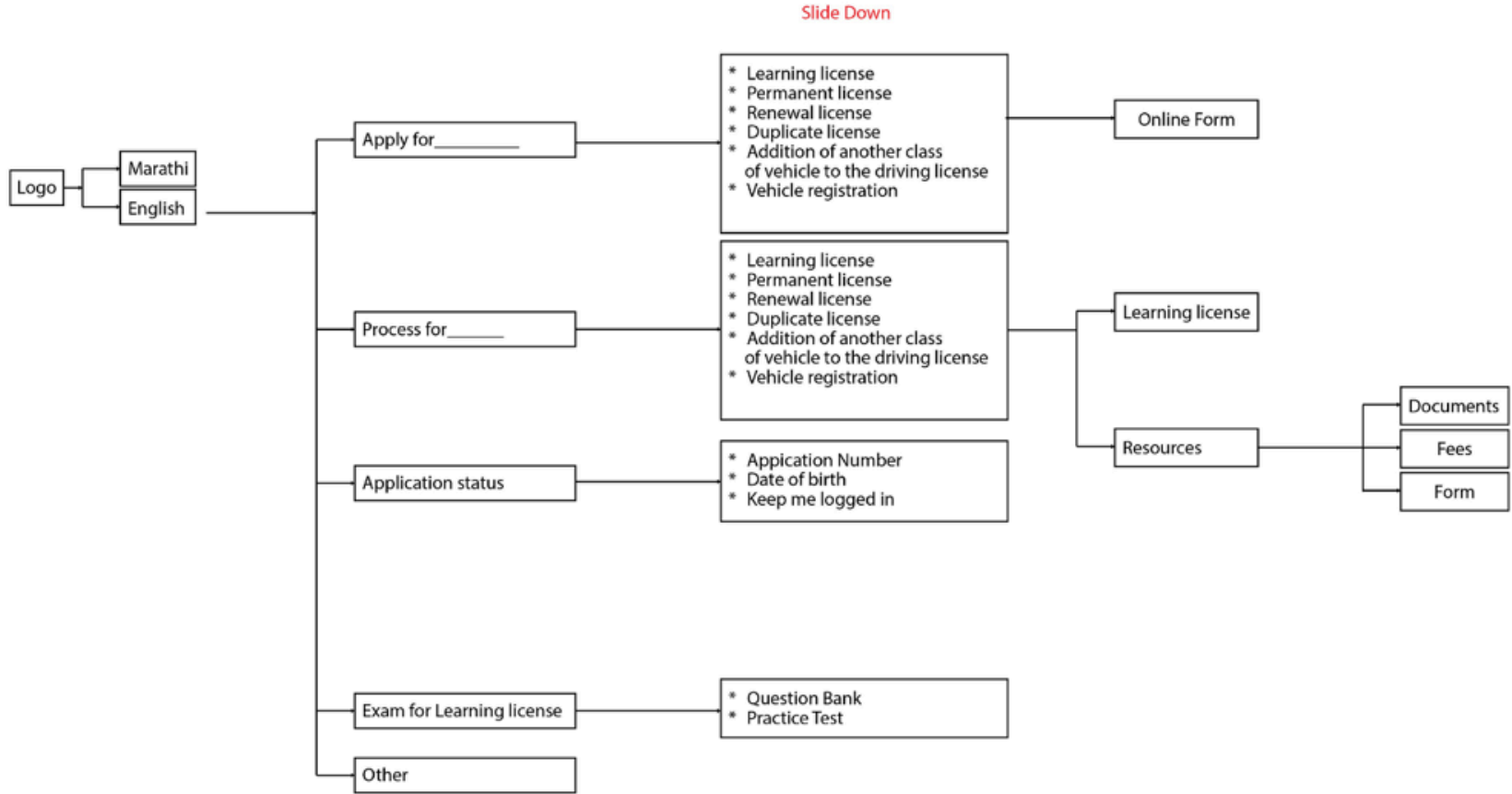
Launch

Main menu

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Menu bar

Sub menu details

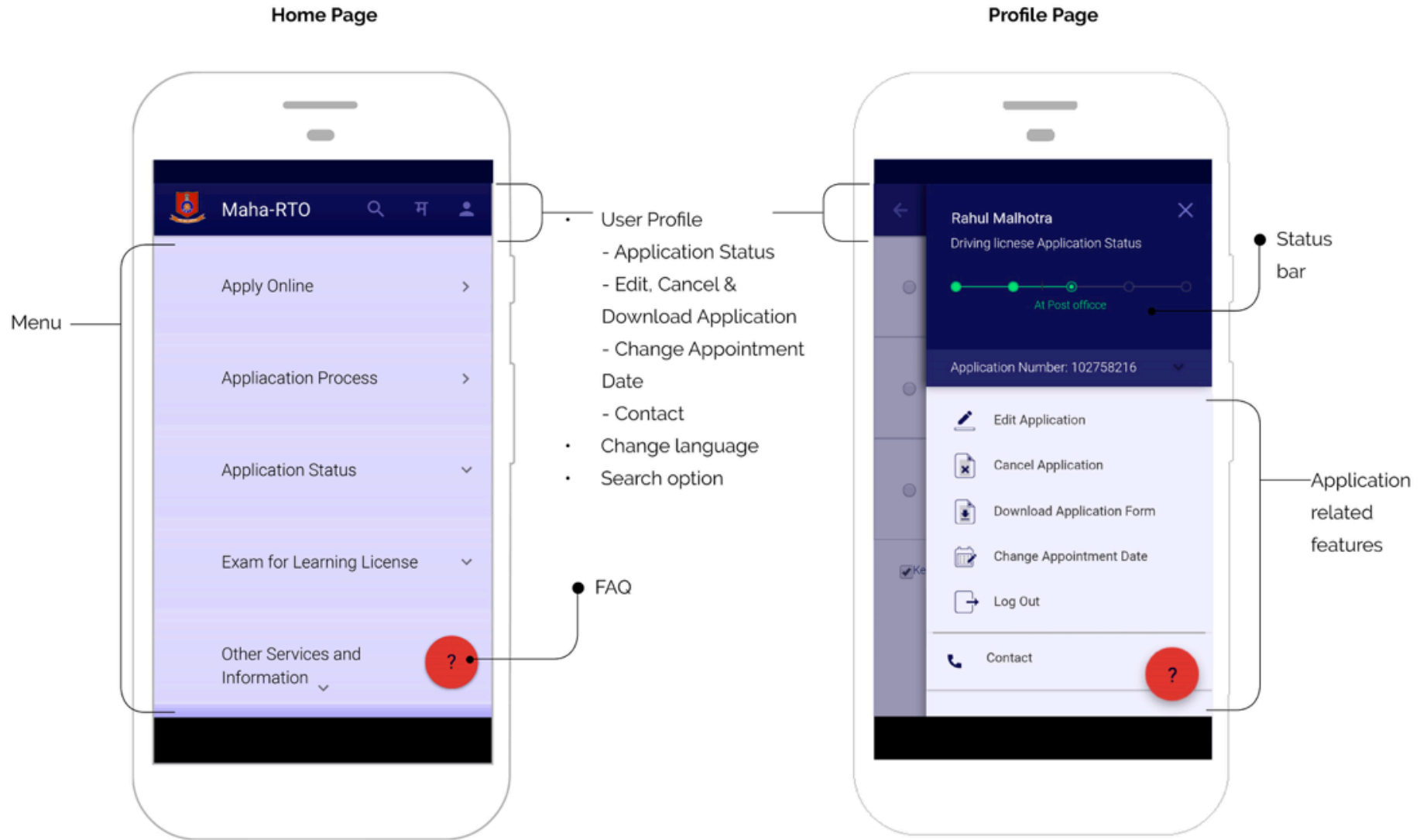


FAQ

Profile

- * Application Status
- * Edit Application
- * Cancel Application
- * Change Slot
- * Logout

Final Prototype



Based on refined information architechure web application is created.

Features

- (?) - FAQ

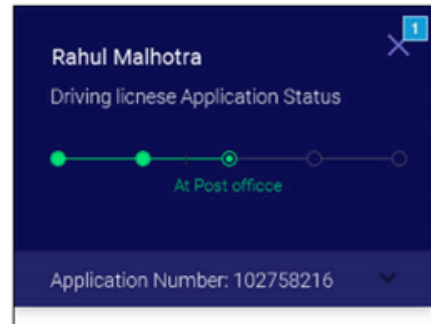
Frequently asked questions about RTO.
• Where to file application ?
• How do I start the application process for driving license?
• What is exam for learner's license? Whether any exemption is provided ?
• Suppose I get a driving license in bangalore, will it be valid throughout India?
• What happens if I fail the driving license test?
• What is the validity period for a Driving License in India?
• Should I produce a medical certificate to obtain a driving license in India?
?

Features

- (?) - FAQ



- Status
- Applicants Profile



Features

- (?) - FAQ

Frequently asked questions about RTO.

- Where to file application ?
- How do I start the application process for driving license?
- What is exam for learner's license? Whether any exemption is provided ?
- Suppose I get a driving license in bangalore, will it be valid throughout India?
- What happens if I fail the driving license test?
- What is the validity period for a Driving License in India?
- Should I produce a medical certificate to obtain a driving license in India?

- Status
- Applicants Profile

Rahul Malhotra

Driving license Application Status

At Post office

Application Number: 102758216

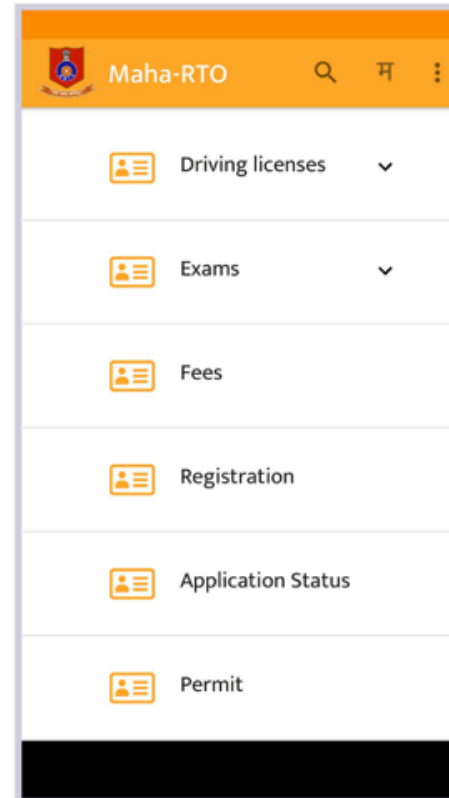
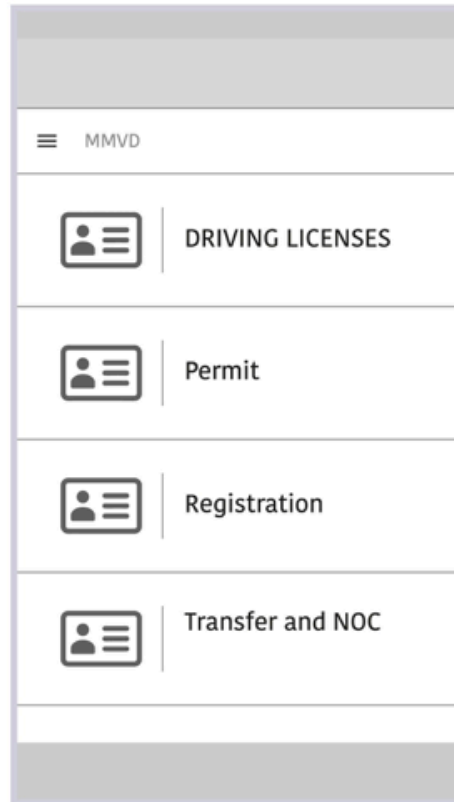
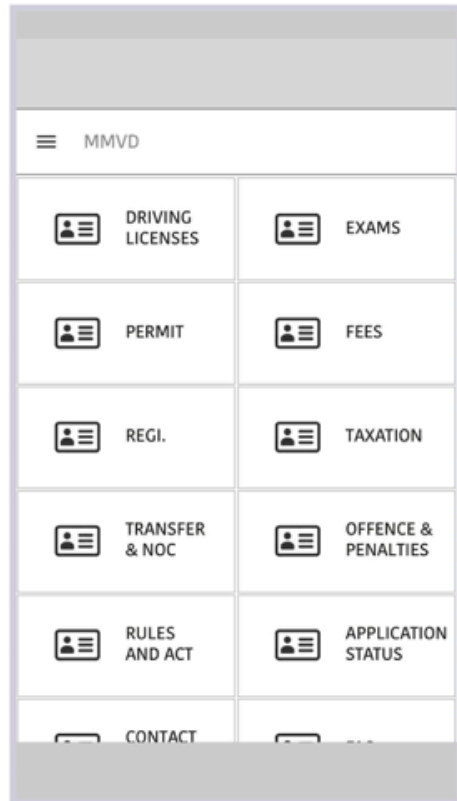
- Auto fill data in form

Fetching Data From Aadhar Database

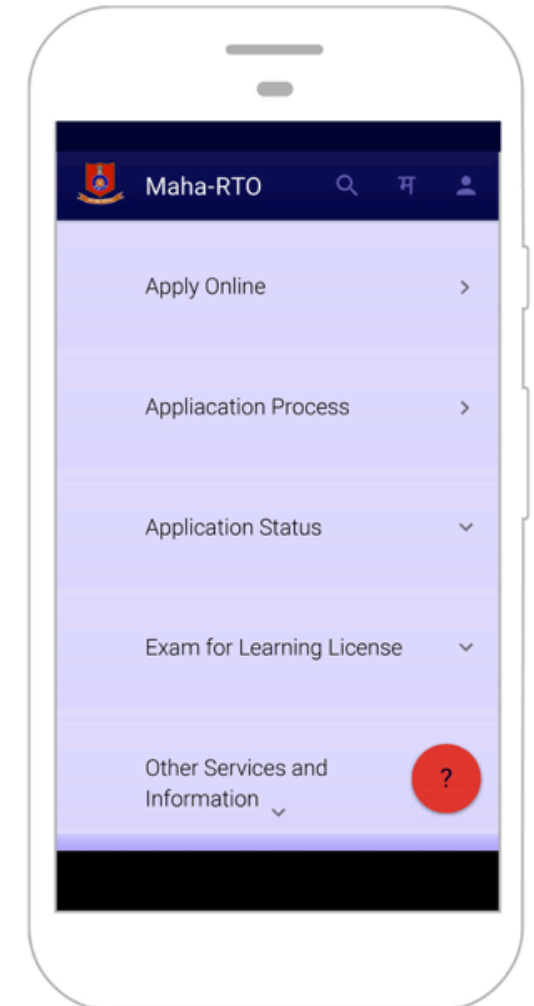
Aadhaar Card/ NPR Number

Date of Birth

Iterations



Based on old information architecture



Based on old information architecture

Evaluation

of Final Prototype

Goals

- People should **apply independently**
- **Findable information**

Tasks and Questions

- Apply for Driving License.
- Check your application status.
- What is your next step ?
- What is the fee for Driving license ?

Evaluation

of Final Prototype

User Group Tested and Interviewed

Non-Tech Savvy		Tech Savvy		Overall	
AVERAGE	SD	AVERAGE	SD	AVERAGE	SD
9.50	1.73	11.00	3.61	10.14	2.36

Evaluation

of Final Prototype

Findings

- Low tech-savvy people

Future Plan

- Translate the web application in other languages
- Development of the web application.
- A Longer evaluation of the web application after development

Need to be done in future

- Tracking system