

# USER MANUAL – IFS DEVICES

## TABLE OF CONTENTS

ABOUT.....	3
HOME PAGE.....	3
ALL DEVICES PAGE.....	6
DETAILED VIEW PAGE.....	8
BORROW NOW.....	9
BORROW LATER.....	10
GET NOW.....	11
CANCEL.....	11
RETURN.....	12
DEVICE EDIT MODE.....	13
DEVICE SEARCH.....	14
ADD A NEW REQUEST.....	15
VIEW NEW REQUESTS.....	15
EDIT NEW REQUESTS.....	17
APPROVE / REJECT NEW DEVICE REQUESTS (CHANGE A NEW REQUEST STATE).....	18
ADD / REMOVE A DEVICE AFTER APPROVAL / REJECTION.....	18
FILTERING FROM THE SIDE NAVIGATION BAR.....	21
SOURCE CODE AND FURTHER EDITING.....	22
THE DATABASE.....	22
THE SOURCE CODE.....	22
FURTHER WORK.....	23

## ABOUT

'IFS Devices' is a single page web application with a responsive layout developed to track, borrow and book devices currently used at IFS for testing purposes and to request new devices.

This application was built using AngularJS, HTML5, Materialize CSS, jQuery (front-end) and REST – Java web services for back-end using JAX-RS. The database is MySQL WampServer and will be deployed in the Oracle WebLogic Server.

This app has no user login (as per the request by our Business Requirement Owner) therefore no security matters were taken into consideration for development.

Any IFS user can access the application without any authentication. Also no admin privileges are provided thus any privileged user can add new devices, edit a current device/new request or even delete new requests & current devices through the edit options provided and change the state of the new requests through the edit mode in requested devices page.

## HOME PAGE

Users will be automatically directed to this page when the application is accessed. (See figure 1)

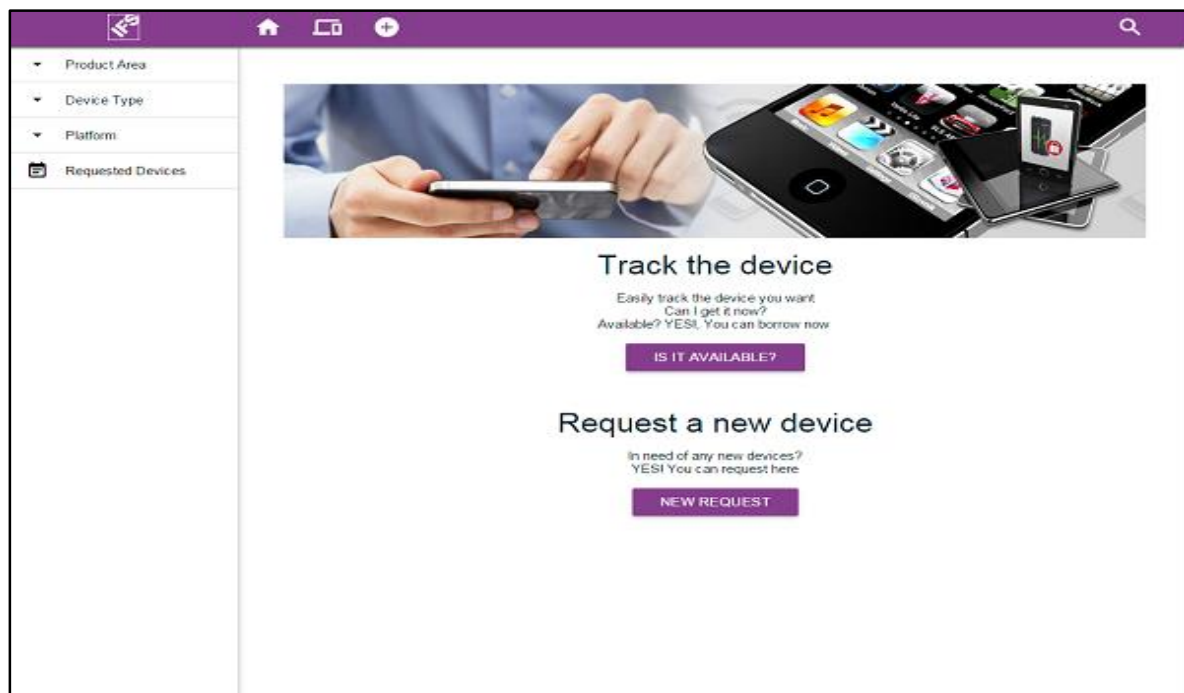


Figure 1 – Home page

The menu bar consists of three icons – Home icon for the current page, Devices icon for All Devices page (List view of All Devices) and the Add icon for adding a new request (See figure 2) and a Search icon which can be used to search for currently available devices in the system. This search will direct the results to for All Devices page (List view).



Figure 2 – Menu bar

'Is It Available' button to see if a device is available in the system, will redirect users to the All Devices page (List view) (See figure 3).

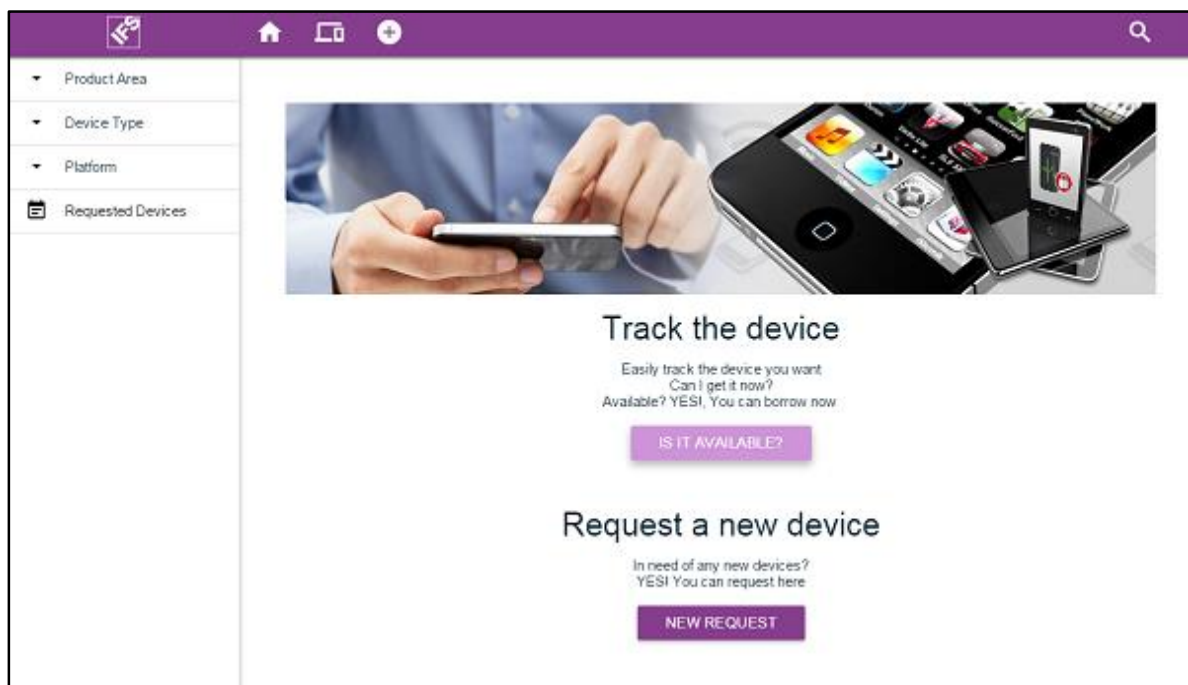


Figure 3 – Is it Available button in the Home Page

'New Request' button to add a new request for a currently unavailable device will redirect users to the Add new Requests page (See figure 4).

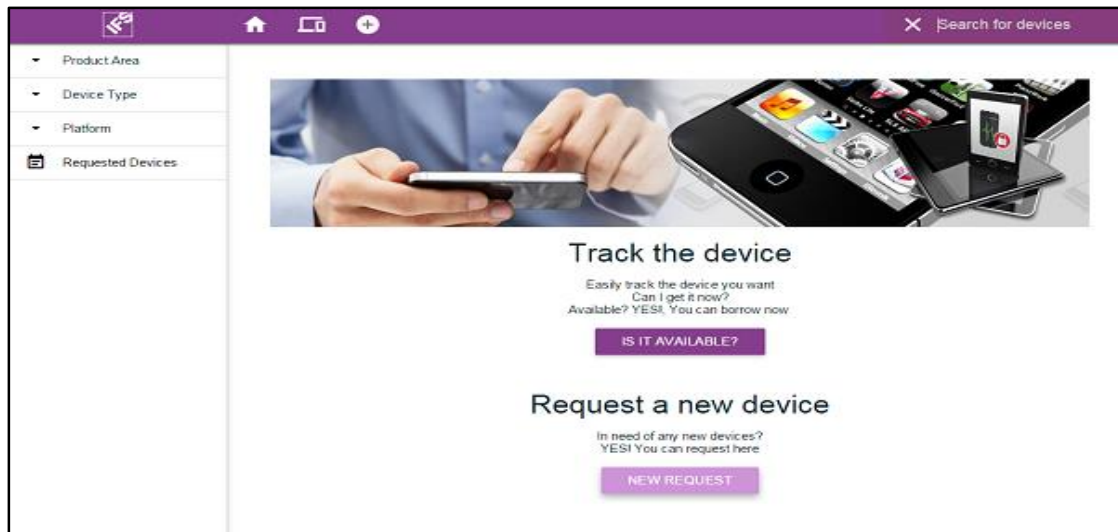


Figure 4 – New Request button in the Home page

The side navigation bar contains categories by which the devices available can be filtered and requested devices which contains information about the state of the newly requested devices (See figure 5). **NOTE** - This bar is hidden in small & medium sized devices and only a hamburger icon appears instead, clicking on that icon will display this side navigation bar in them.

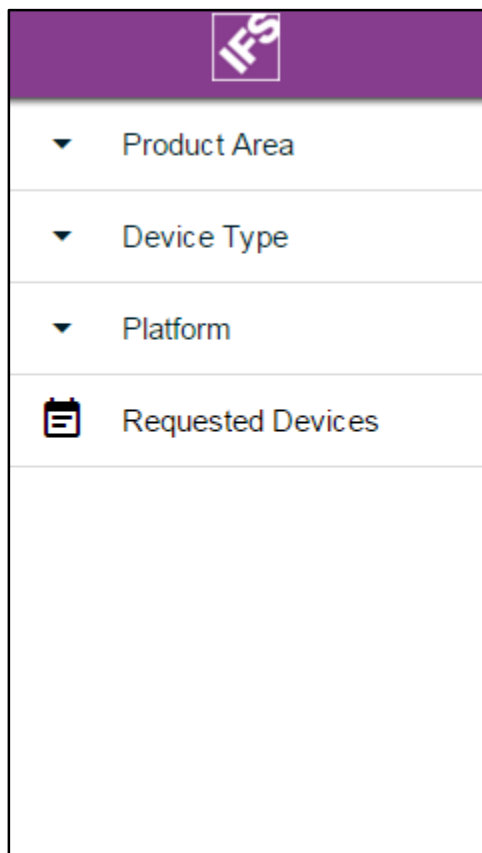


Figure 5 – Side Navigation bar in large devices

## ALL DEVICES PAGE

This page is a summarized list view of all devices currently available at IFS with the current status (available/not available/booked as in today) and the available options for a device based on today's device status. (See figure 6)

- **Green** is when the device status is available, i.e. any user can borrow that device now or later.
- **Orange** is when the device status is booked (which means this device is being booked for today), i.e. any user can borrow that device later and ONLY the person who placed the booking for that particular device can get that booked device now or cancel the booking (validated for the username). 'Currently with :' shows the owner who has booked the device today.
- **Red** is when the device status is unavailable (which means this device is being currently borrowed by someone), i.e. any user can borrow this device later and ONLY the person who currently borrowed the device can return it(validated for the username).

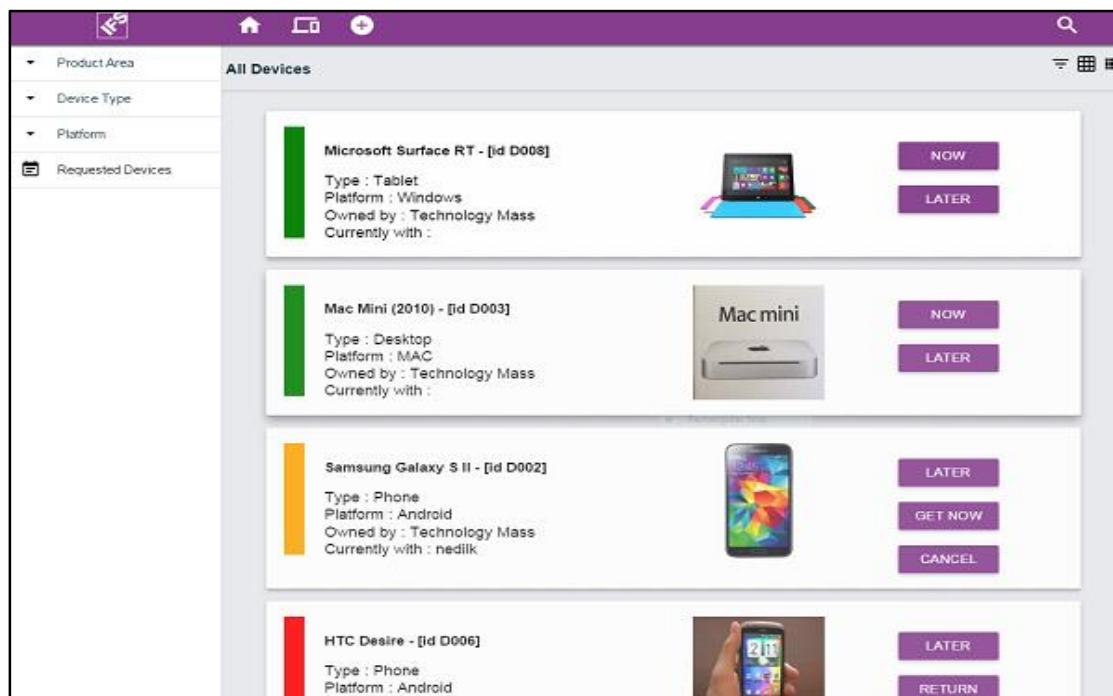


Figure 6 – All Devices List view on a large device

**NOTE** – The **booked** devices shown are those devices which are being booked on that particular day.

The filter icon on the menu on 'All Devices' menu will filter devices based on anything. To filter devices, click on the filter icon and type based on what devices should be filtered. Click again on the filter icon for the input box to disappear. (See figure 7)

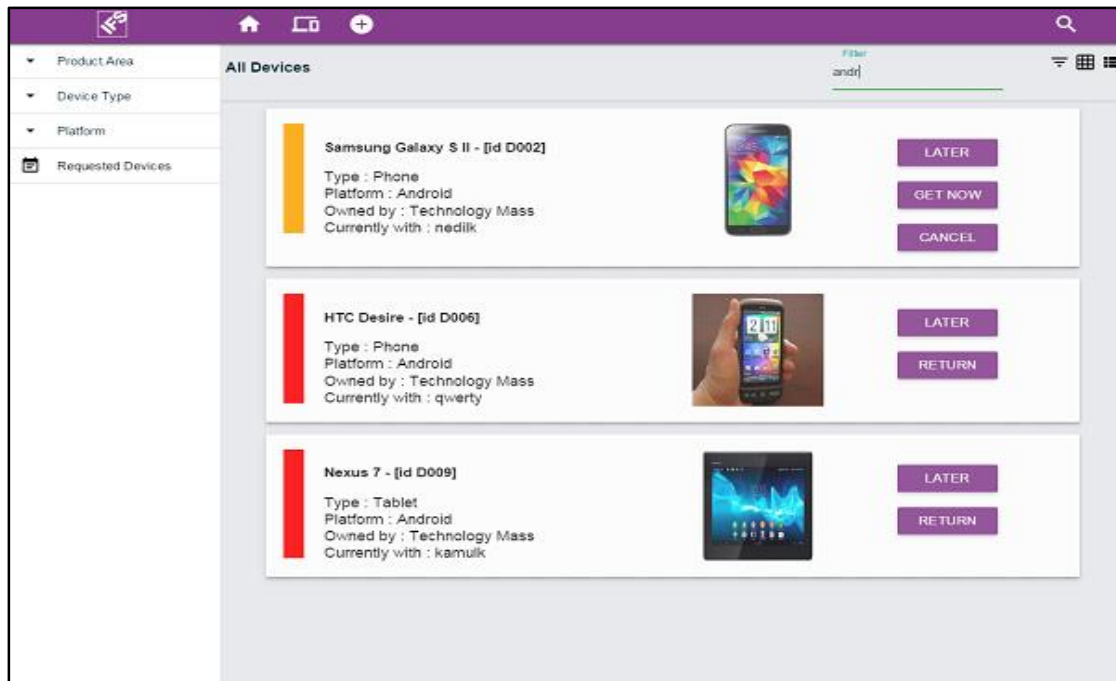


Figure 7 - Device Filter

The thumbnail view icon(the box) on 'All Devices' menu will display all the devices in a thumbnail. **NOTE-** This view is available only for large & medium sized devices since in a small device the list view & the thumbnail view is the same. (See figure 8)

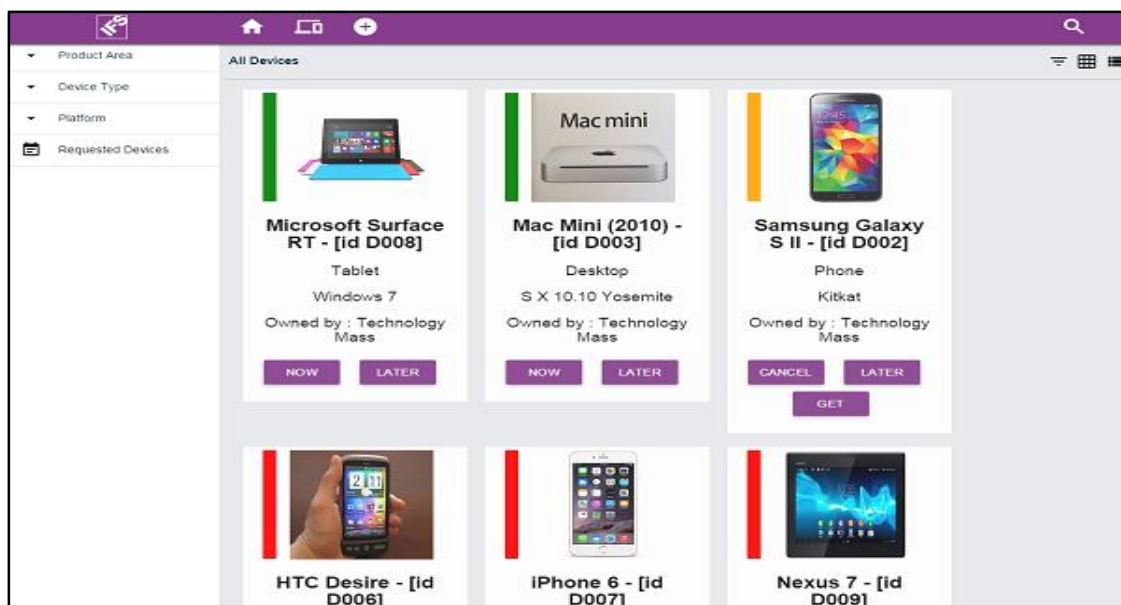


Figure 8 - Thumbnail view for large & medium devices

Clicking a device info / any of the button options available will lead to the detailed view of that particular device.

## DETAILED VIEW PAGE

This has the details of a particular device with all the button options. (See figure 9)

**NOTE** – Although every button option is available users should be responsible to select the required option. Progressing further from 'Get', 'Cancel' & 'Return' options is being validated to the correct username of the request granter. Therefore ONLY the person who granted a borrowing / booking for that particular device will be accessed to proceed further.

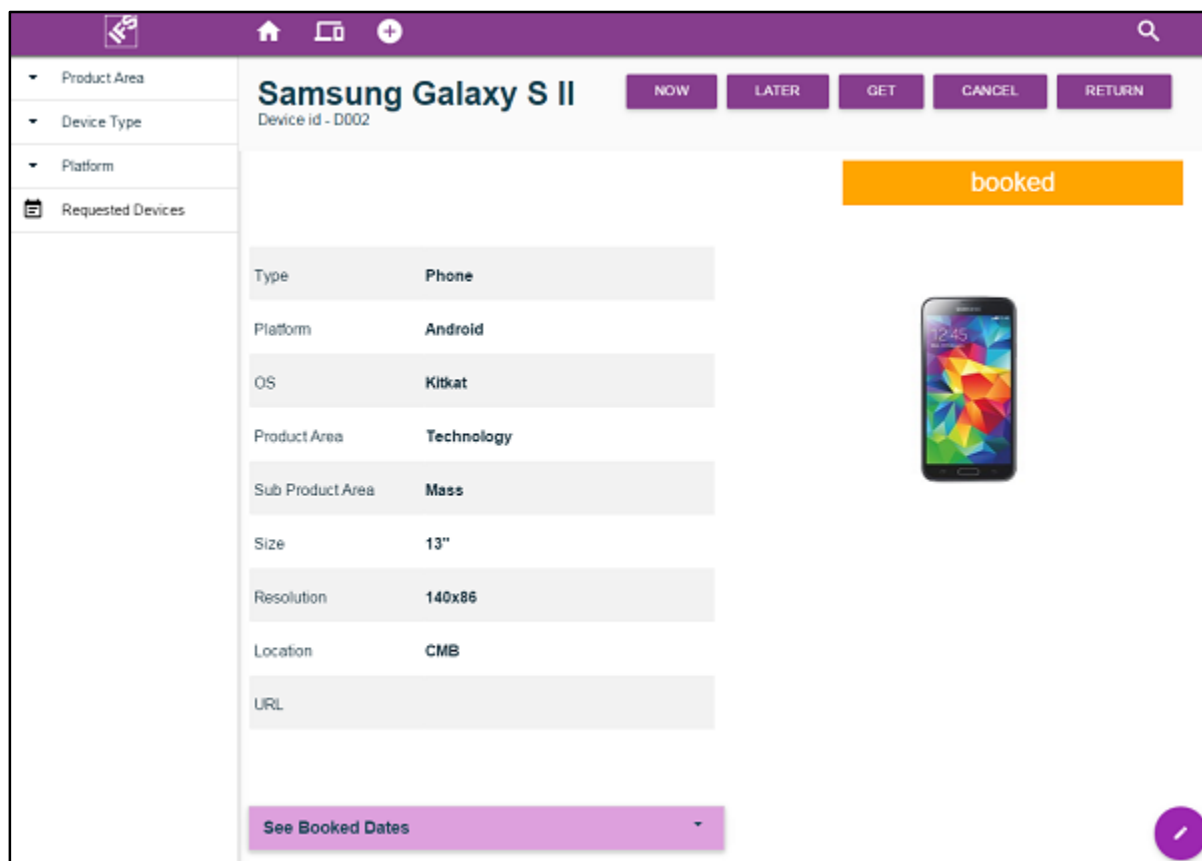


Figure 9 - Detailed view for a particular device

'See Booked Dates' will display the already booked dates for that particular device. Clicking on it will list down the dates with the owner in a table format if there are any, and if no future booked dates are available, none will be displayed but only the row headings of the table. (See figure 10)



See Booked Dates		
Booked From	Booked Till	Booked by
2016-02-03	2016-03-07	namalk
2016-02-08	2016-02-15	sanmlk
2016-02-16	2016-02-23	rugulk

Figure 10 - Booked Dates Table view when clicked

The 'edit button' in the bottom right corner will lead to the edit mode of that device where any user can edit information of that device.

## BORROW NOW

- Any user can borrow any device if its currently available (green).
- Clicking 'NOW' in the All Devices List view will lead to the detailed view of that particular device and user has to click 'NOW' in the details view page again.
- Then it will lead to the Borrow Now form (See figure 11) where user has to enter his username (validated to a length of 6) and select the duration of borrowal which has a range of values from 1 day to 1 month from the drop down.
- Then submit. If successful a success response message will appear.

The screenshot shows a 'Borrow Now' modal form. The form contains a 'Username' field with the value 'nedilk' and a 'Duration' dropdown menu currently set to '1 week'. A purple 'SUBMIT' button is at the bottom of the form. In the background, the device details for a 'Microsoft Surface RT' are visible, including fields for 'Device id - D008', 'Type', 'Platform', 'OS', 'Product Area', and 'Sub Product Area'. A green button labeled 'available' is also present on the right side of the background page.

Figure 11 - Borrow Now Form

## BORROW LATER

- Any user can borrow any device based on its availability on that particular date that user is going to borrow the device.
- Clicking 'LATER' in the All Devices List view will lead to the detailed view of that particular device and user has to click 'LATER' in the details view page again.
- Future bookings already placed for the device can be viewed (**if any**) in the Borrow Later form in the format of Booked From date to To date, hence users can avoid confusions when placing bookings.
- Then it will lead to the Borrow Later form (See figure 12) where user has to enter his username (validated to a length of 6), select the 'From date' from the calendar available (After selecting the date scroll down and click CLOSE, TODAY will select today's date) and select the duration of booking which has a range of values from 1 day to 1 month from the drop down.
- Then submit. If successful a success response message will appear.

The image shows a mobile application interface. In the background, there is a list of devices, with 'Galaxy S II' visible. At the top of the device list, there are two tabs: 'NOW' and 'LATER'. The 'LATER' tab is selected. Overlaid on top of the device list is a white modal form titled 'Borrow Later'. The form contains the following elements: a user icon and a 'User Name' input field; a calendar icon and a 'From' date input field; a clock icon and a 'Duration' dropdown menu. Below these fields is a purple 'SUBMIT' button. At the bottom of the form, there are two lines of text showing existing bookings: 'Booked From : 2016-02-02 Till : 2016-02-05' and 'Booked From : 2016-02-08 Till : 2016-02-15'.

Figure 12 - Booking Form

## GET NOW

- A user who has booked a device for a future date can get that booked device on that particular date through this option. But note that this 'GET NOW' option will be **available only from the booked date onwards** since the device will be shown as 'booked' only from that particular booked date onwards.
- Clicking 'GET NOW' in the All Devices List view will lead to the detailed view of that particular device and user has to click 'GET' in the details view page again.
- Then it will lead to the Get the booked device Now form (See figure 13) where user has to enter his username (validated to a length of 6).
- Then submit. If successful, i.e. if the booking request holder's username matches with the entered username, a success response message will appear.

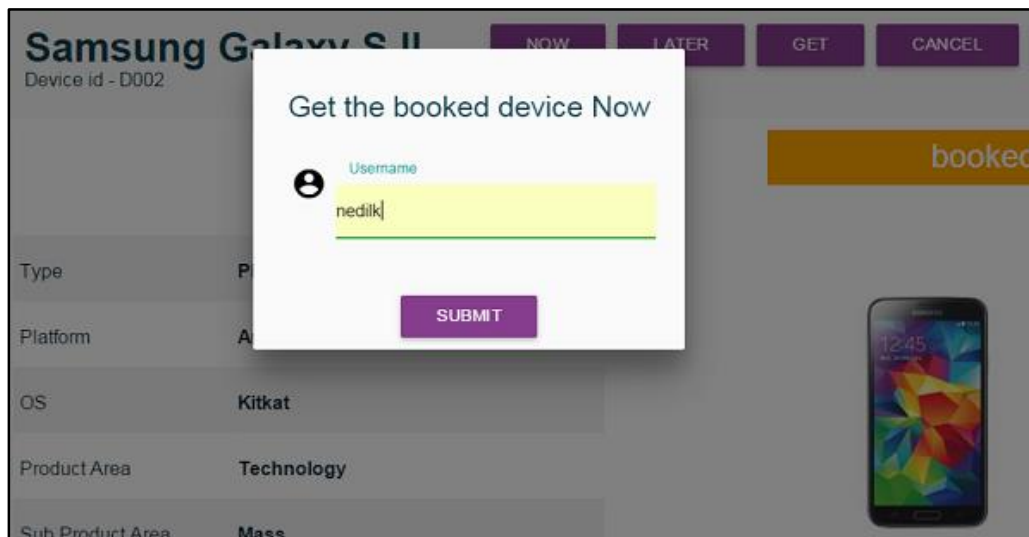
The image shows a web application interface. In the background, there is a page for a 'Samsung Galaxy S II' with 'Device Id - D002'. It has tabs for 'NOW', 'LATER', 'GET', and 'CANCEL'. The status 'booked' is displayed in a yellow box. Below this is a table with device specifications: Type, Platform, OS (Kitkat), Product Area (Technology), and Sub Product Area (Mass). An image of the phone is shown on the right. Overlaid on this is a white modal box titled 'Get the booked device Now'. Inside the modal, there is a 'Username' label, a text input field containing 'nedilk', and a purple 'SUBMIT' button.

Figure 13 - Get Now Form

## CANCEL

- A user who has booked a device for a future date can cancel that booking through this option. But note that this 'CANCEL' option will be **available only from the booked date onwards** since the device will be shown as 'booked' only from that particular booked date onwards.
- Clicking 'CANCEL' in the All Devices List view will lead to the detailed view of that particular device and user has to click 'CANCEL' in the details view page again.

- Then it will lead to the Cancel the booking form (See figure 14) where user has to enter his username (validated to a length of 6).
- Then submit. If successful, i.e. if the booking request holder's username matches with the entered username, a success response message will appear.

Figure 14 - Cancel Booking form

## RETURN

- A user who has currently borrowed a device can return the device through this option.
- Clicking 'RETURN' in the All Devices List view will lead to the detailed view of that particular device and user has to click 'RETURN' in the details view page again.
- Then it will lead to the Return the device form (See figure 15) where user has to enter his username (validated to a length of 6).
- Then submit. If successful, i.e. if the username of the current device holder matches with the entered username, a success response message will appear.

Figure 15 - Return device form

## DEVICE EDIT MODE

Any user can edit information about a currently available device through this. (See figure 16)

To edit :

- Click on the purple color edit icon on a detailed view of a device and go to the edit mode
- Edit any information as needed
- (To change the image, click Choose file to select the correct file and upload)
- Click Save to submit the changes
- Back icon will lead a user back to the detailed view of that device

The screenshot displays the 'Edit mode of a device' interface. It features a purple header bar with navigation icons (IFS, home, mobile, plus) and a search icon. A left sidebar shows 'Platform' and 'Requested Devices'. The main area contains a device image placeholder with a 'Choose File' button and 'No file chosen' text. Below this are form fields for Device ID (D002), Device Name (Samsung Galaxy S II), Product Area (Technology), Sub Product Area (Mass), Resolution (140x86), Size (13''), Operating System (Kitkat), URL, Location (CMB), Type (Phone), and Platform (Android). At the bottom are back and save icons.

Figure 16 - Edit mode of a device

## DEVICE SEARCH

This Search is to search & filter current devices in the system. **Currently this works only for All Devices List view page & thumbnail view page.** (See figure 17)

Devices can be searched upon the device name, type, platform, OS, department, Sub product area & a username etc.

- Click on the Search icon and an input box will appear.
- Type the domain based on which devices should be searched. Selecting a suggestion will make the input box yellowed.
- Click the 'All Devices' icon on the menu bar and go to the 'All Devices' page and search results will be displayed on that page.
- After searching, close the Search box and it'll erase the content inserted and lead users back to the previous state.

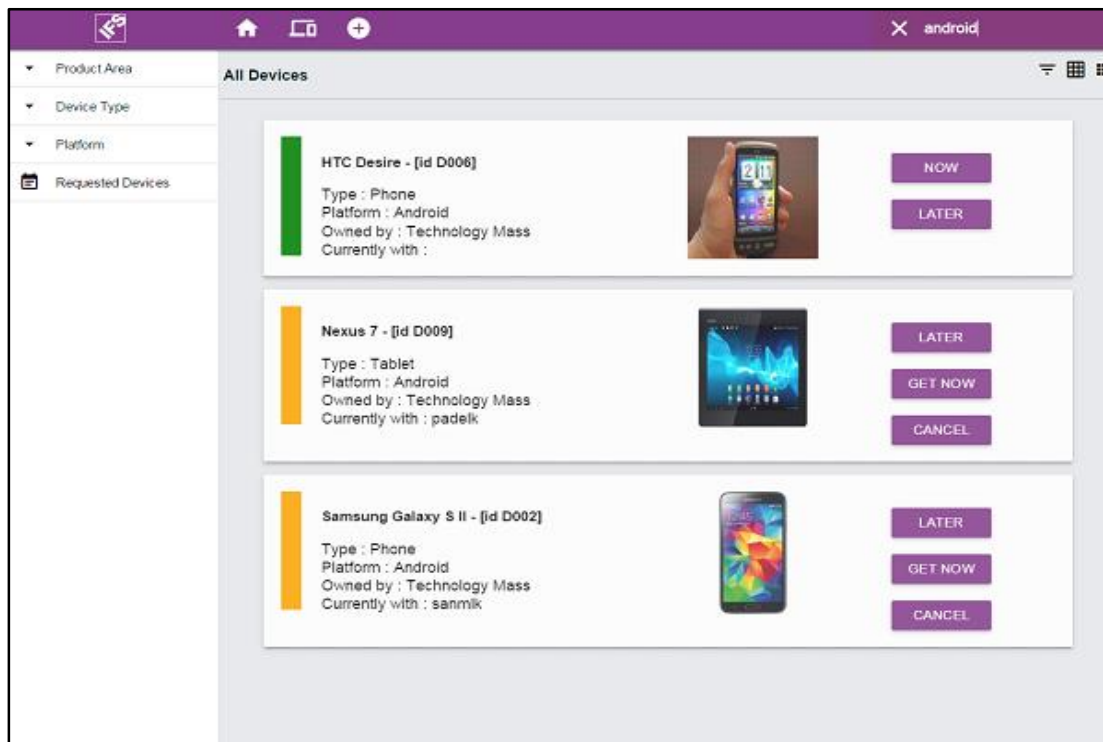


Figure 17 - Device Search

## ADD A NEW REQUEST

Any user can add a new request from the 'New Request' button on the home page or through the Add icon in the menu bar. It will lead to the 'Add New Device Request' page (See figure 18)

Request a device

Device Name \* User Name \*

Product Area \* Sub Product Area \*

Project \* Size Inches

Display Resolution in pixels URL

Operating System Comment

Platform Type

Choose your option Choose your option

Priority Location \*

Choose your option Choose your option

To submit fill the required fields (\*).

SUBMIT

Figure 18 - Add a new device Request page

Fill all the required fields and then only the 'Submit' button will appear.

All the new device requests can be viewed at the Requested Devices in the side navigation bar

## VIEW NEW REQUESTS

Information about the newly requested devices can be viewed at the 'Requested Devices' in the side navigation bar. Clicking on 'Requested Devices' will lead to this page (See figure 19)

- By default users will be directed to the '**Requested**' device list which contains info about the new requests placed.
  - Click anywhere on a device information to view details about the device. And it will lead to the detailed view of a device. (See figure 20). **NOTE – This is applicable for all the devices in all the states.**

- Click the **'In Progress'** tab to view new device requests currently in the discussion mode.

Under the **'Complete'** tab contains information about new device requests that have gone passed the discussion state. (See figure 21)

- **'Confirmed'** contains info about the new device requests that have been confirmed by the Board for purchase.
- **'Rejected'** contains info about the new device requests that have been rejected by the Board for purchase.

REQUESTED		IN PROGRESS	
	Samsung S56	Technology - Server	⋮
	Lenova SG	Technology - Client	⋮
	Samsung s2	Technology - Mass	⋮
	Lenova SG	Technology - Server	⋮
	Samsung Galaxy	Trainee - Trainee	⋮
	Robot 123	R&D - Services	⋮

Figure 19 - View New Requests

REQUESTED		IN PROGRESS	
	Samsung S56	Technology - Server	⋮
Device Name		Samsung S56	
Product Area		Technology	
Sub Product Area		Server	
Project		SLASCOMM	
Resolution		12	
Size		23	
User Name		q	
Operating System		Gingerbread	
URL		Test.lk	
Location		CMB	
Priority		2	
Type		Phone	

Figure 20 - The detailed view of a new request



REQUESTED			COMPLETE
CONFIRMED		REJECTED	
	Dell 3125	Technology - Mass	⋮
	Acer s1	Technology - Tools	⋮
	Lenova SG	Technology - Support	⋮
	Megabox s12	Technology - Client	⋮

Figure 21 - New device requests under the Complete State

## EDIT NEW REQUESTS

To edit any request, click on the edit icon on a detailed view of a device. Edit the necessary details and click save. (See figure 22)

PS - If any user changed the state to 'Rejected', it would be appropriate if the reason for rejection is added.

REQUESTED		COMPLETE
REQUESTED		IN PROGRESS
	Samsung S56	Technology - Server
Device Name	Samsung S56	
Product Area	Technology	
Sub Product Area	Server	
Project	SLASCOMM	
Resolution	12	
Size	23	
User Name	q	
Operating System	Gingerbread	
URL	Test lik	
Location	CMB	
Priority	2	
Type	Phone	

Figure 22 - Editing a new device Request

## APPROVE / REJECT NEW DEVICE REQUESTS (CHANGE A NEW REQUEST STATE)

To change the state of any new request, go to the edit mode of a new device request, and Select 'In Progress' or 'Confirmed' to approve or 'Rejected' to reject a new request as necessary. (See figure 23)

Methods & Processes	Product Area	Technology
Projects	Sub Product Area	Mass
Service & Assets	Project	SLASCOMM
Supply Chain	Resolution	12
Technology	Size	23
Training	User Name	q
Device Type	Operating System	Gingerbread
Desktop	URL	Test.lk
Laptop	Location	CMB
Phone	Priority	2
Tablet	Type	Phone
Wearables	Platform	Android
Platform	Request Status	Requested
Android	Comment	Test
IOS	Requested Date	2016-01-27
Linux		
MAC		
Windows		

Figure 23 - Changing the request state

## ADD / REMOVE A DEVICE AFTER APPROVAL / REJECTION

Under '**Complete**' lies the new device requests which have surpassed the discussion state.

**Confirmed** is when the new device request is being approved and **Rejected** is when the new device request is being rejected.

If & when a confirmed new device request is purchased, to add that new device to the All Devices list (See figure 24 & 25) :

- Click on 'Make it Available'
- Enter a new device ID and click 'Set'

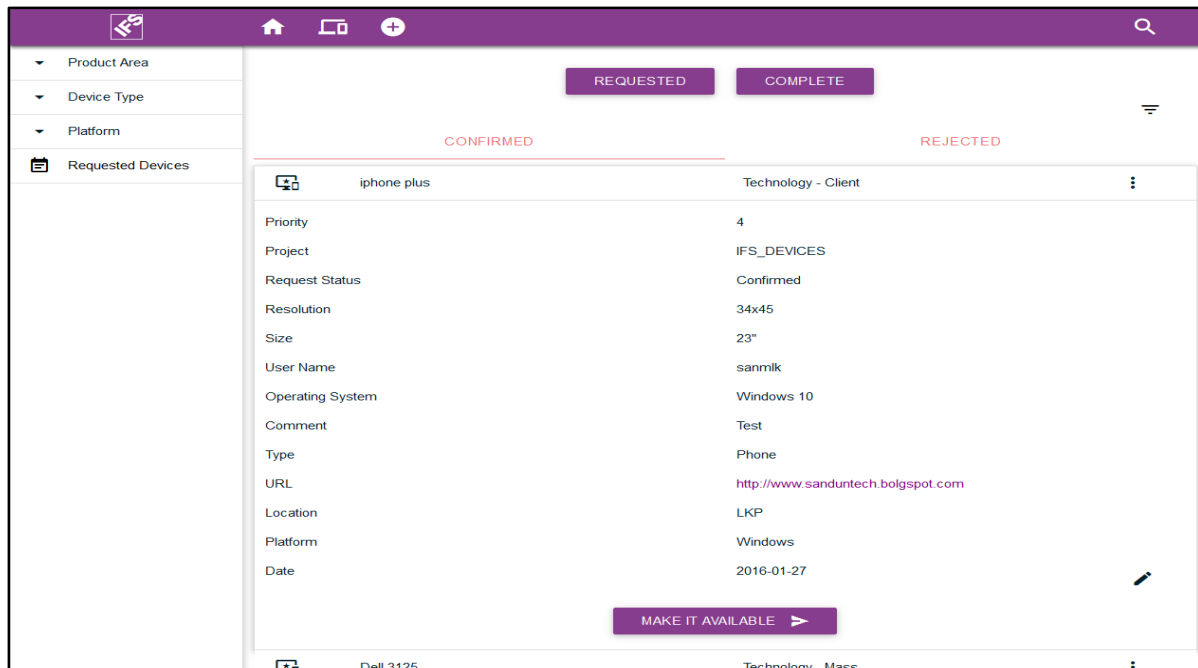


Figure 24 - Adding a purchased new device to the Device List

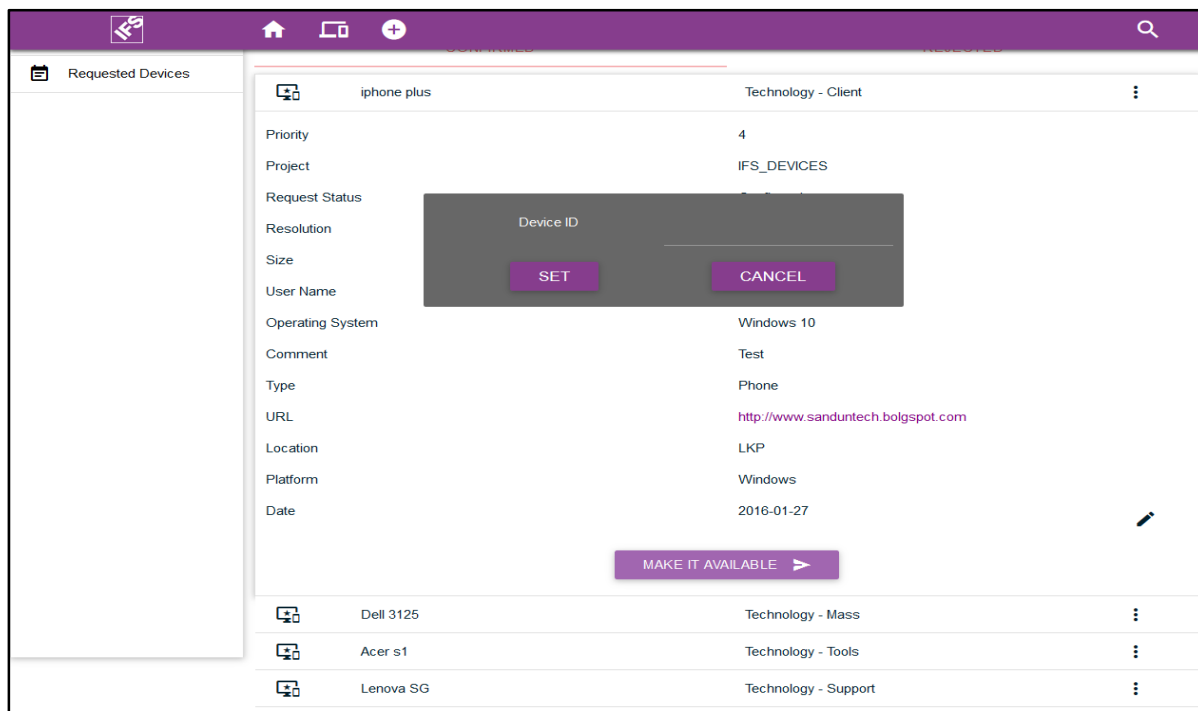


Figure 25 - Adding a purchased new device to the Device List

To delete a new device request if & when its being rejected by the Board (See figure 26 & 27) :

- Click on 'Delete from the list' under 'Rejected' device requests
- And click on 'Delete'

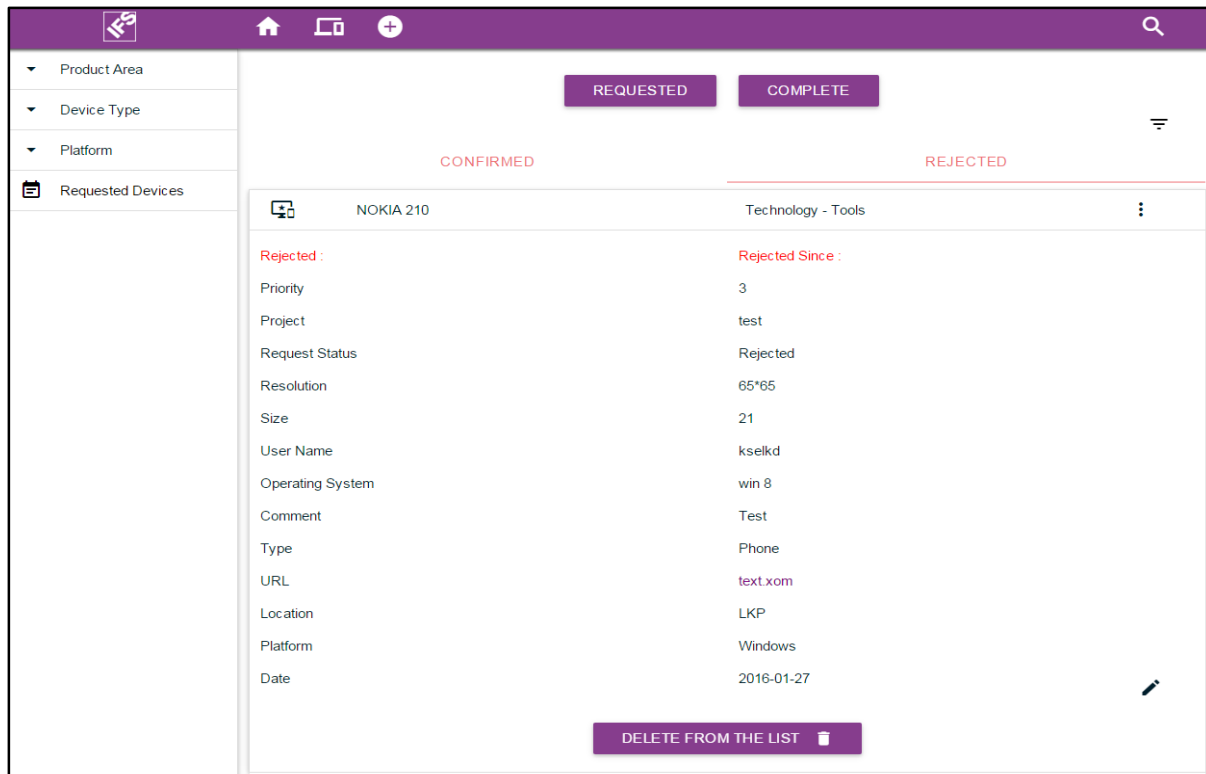


Figure 26 - Deleting a request from the List after Rejection

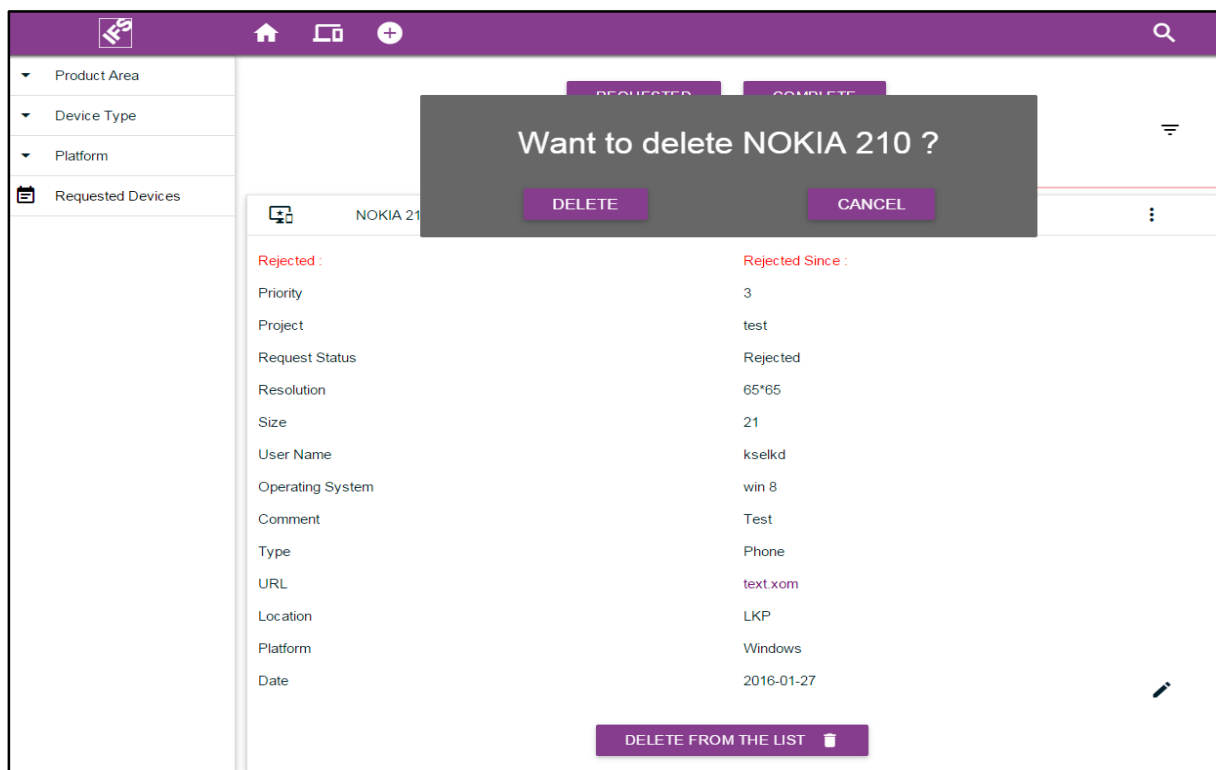


Figure 27 - Deleting a request from the List after Rejection

## FILTERING FROM THE SIDE NAVIGATION BAR

Users can filter devices based on the Product Area, Device Type & Platform.

Click on the small dropdown in each to select a category under which current devices need to be filtered and then it will lead to the All Devices page with the filtered results. (See figure 28)

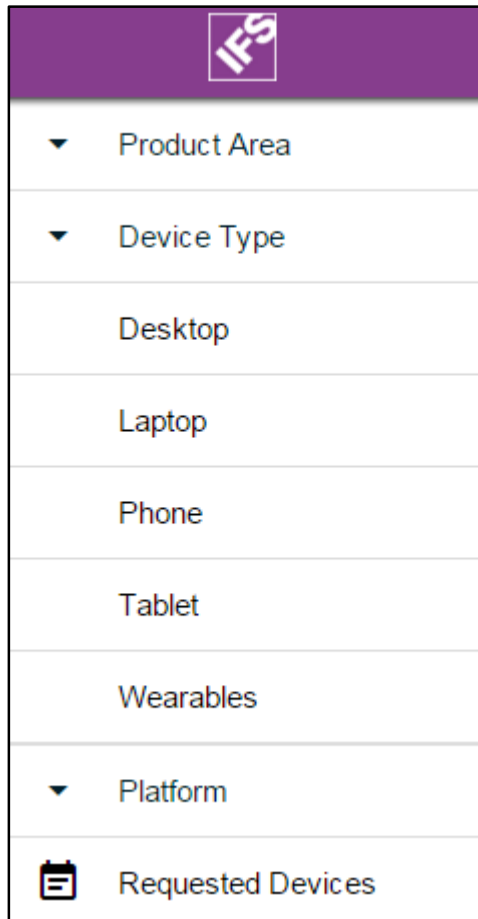


Figure 28 - Filtering in the side navigation

## SOURCE CODE AND FURTHER EDITING

### THE DATABASE

Our database named '**devices\_ifs**' is a MySQL database in the WAMPSEVER. (See figure 29)

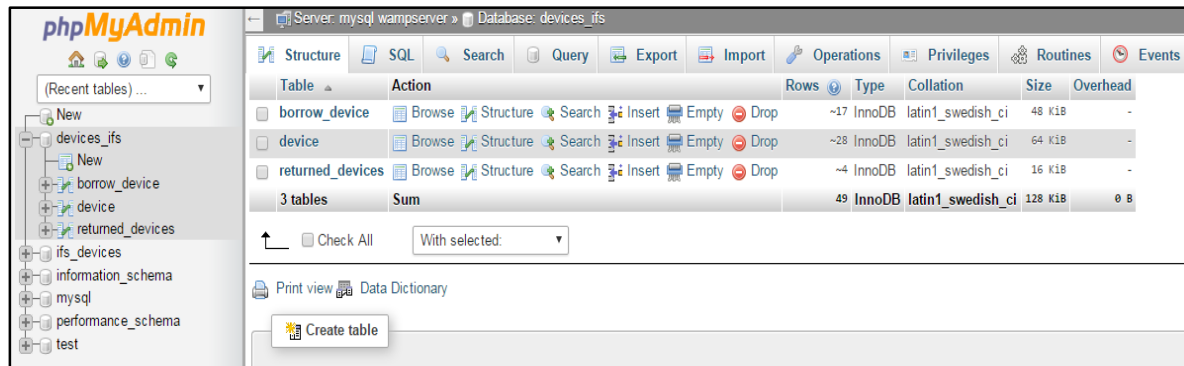


Figure 29 - The database

### THE SOURCE CODE

This web application has been developed using AngularJS, HTML5, Materialize CSS, JQuery for the front-end and Java (REST) Web Services using JAX-RS & MySQL for the backend.

The source code can be found at : <http://cmbtrnfs02/dev/IFSDevices>

All html pages are included under the dynamic folder [\\IFSDevices\\src\\main\\webapp\\dynamic], JavaScript files under the js folder [\\IFSDevices\\src\\main\\webapp\\js ] and all CSS files for each html page under the styles folder [\\IFSDevices\\src\\main\\webapp\\styles].

All images of devices are currently saved under the images folder at \\IFSDevices\\src\\main\\webapp\\images. We had been working on saving those images as type BLOB in the database but several back-end issues arose and we couldn't complete the task due to the limited amount of time available. The img folder [\\IFSDevices\\src\\main\\webapp\\img ] contains images of icons & logos used.

Fixed\_Json folder contains JSON files used at the Side Navigation bar, the dropdowns of the Requested, Request pages.

Under \\IFSDevices\\src\\main\\java\\ifs\_devices contains the back-end code in the aspects of model, resources & service.

\\IFSDevices\\src\\main\\resources has the .sql file of the database. (new file is the current database file)

## FURTHER WORK

- Implement the Search functionality for all the pages using route parameter navigation (Currently works only for the All Devices page) (Web Service had been written for the Search function although not functioning properly and it could be found in the java folder under respective folders)
- Implement side bar filtering for the Sub Product Areas of each department (Currently works only for the departments)
- Save the images as type BLOB in the database. (Currently all the images are being saved in a separate folder named 'images' [\\IFSDevices\\src\\main\\webapp\\images ] and the images are currently saved with numbers (eg- 1.jpg))

### Bugs unfixed :

- The buttons at All Devices page aren't working – The modal which comes from the button clicks doesn't dismiss in that particular page therefore we routed the result from the button click to the details page.
- The reason to display all the buttons in the details page is because 'ng-hide' wasn't working in that particular page. Since we couldn't find any solution after many attempts we made all the buttons available but the action would be validated to the cause.