

CASE STUDY



200OK Solutions
D-205, Ganesh Meridian,
Near Amiraj Farm House,
Opp. Gujarat High Court,
S. G. Highway,
Ahmedabad - 380 060

[✉ info@200oksolutions.com](mailto:info@200oksolutions.com)

[☎ INDIA +91-79-6545 3475](tel:+917965453475)

[UK +44-20 3372 4627](tel:+442033724627)

www.200oksolutions.com

CASE STUDY

Creating a Reservations Upload Module to do bulk reservations by uploading a template file with required data

Business Engagement Model

Off-Shore Dedicated Resource Model

Client Profile

The client is a Hotel based in US, and looking forward to make a solution that works for hotel reservations to,

- Make bulk reservations by uploading a template file with required data

Business Need

Client was looking to develop a module using Struts-Spring-Hibernate Integration, JQuery, JQGrid, JSON, Apache POI and MySQL as Backend. He was also looking for specific features as below....

- Create Bulk Reservations by uploading template file
- Uploaded files data will be visible in the grid
- Create, Modify and Cancel the bulk reservations by adding appropriate code for the reservations
- Wants to enhance Application in future for integrating different features.

Challenges

- Read data from the template file and passing to the specific field with proper data type
- Read all the reservation requests from template file and store it in the database.

Solution Feature

- We have used technologies like Struts, Spring, Hibernate, Apache POI, JQuery, JQGrid, JSON, Ajax & Java-script with JSP design for achieving cross browser compatibility.
- We have used lightweight component JQGrid of JQuery to display all uploaded template file data.
- We have used MVC Architecture to achieve requirement.

Benefits

- Client can do the bulk reservations by just uploading template file with proper data
- Client can Create, Modify and Cancel the reservations by passing specific keyword for reservation
- You can do multiple reservations by clicking single button
- Reservation request will be maintained by CRON job. It will be executing as per configured time in the backend. This job will automatically execute and get the data which needs to do reservations.
- Module is designed in such manner that, any time in future it can be extended easily.
- We can achieve a Great level of Client Satisfaction, by meeting its requirement needs.

Technology

- Struts, Spring, Hibernate, Apache POI, CRON Job
- JQuery 1.7.1 & 1.8.2, JSON, Ajax, JQGrid
- MySQL
- Various Online & Offline tools for rapid development of Java-script & JQuery & CSS Designs.

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Features Included:

- In display page, we can download the template for specific hotel with required fields, which needs to do reservations in the bulk.
- After downloaded template file, fill all required data in it with proper format.
- Once you are done with all required information, upload template file by adding description to identify it easily.
- To restrict data confliction, you can upload at a time only one template file. If any file is under process that time you can't upload another file. You have to wait till then file executed. You can upload another template file after earlier one executed.
- After successfully uploading the file, data will be displayed in the grid format. From where you can verify your uploaded data which you filled in the template file.
- To identify the uploaded file data, we are maintaining status for that file. Once file uploaded successfully, it will be in the "PENDING" status and view in the grid.
- Uploaded file will be displayed in the History section, which maintains the history of uploaded files. You can also download file from there which you uploaded in the module.

Reservations Upload

[Download Template](#)

Download reservation template link

Fill the required data in downloaded template

Upload Reservations Using Downloaded Template

File: No file selected.

Description:

Direct Bill: Yes

Select filled template data file and upload in the module

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Features Included:

- When you upload the template file you can see this grid format screen. In this screen you can see all filled data in template file.
- If you uploaded the file and you don't want to execute it then there is one link above left corner of grid named with "Delete Uploaded File". After your confirmation for the delete operation, it will delete all data from system and also delete uploaded file.
- This screen is only used to verify the uploaded data from the template file. Once you verified the data then there is one button to start to do reservations.

[Delete Uploaded File](#) Delete uploaded file, if you want to stop the process for bulk reservations

Reservation Information Grid					
Rooming List Id	Type	Confirmation Code	Room Code	Rate Type	Check In Date
1	New		STD	BAR	Nov 15 2014
2	New		STD	BAR	Nov 20 2014

Reservations data will be displayed in the grid which we filled in the template file for the bulk reservations.

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Features Included:

- There is “Create Reservations” button, by this button you can notify system to start reservation in your system.
- When you click “Create Reservations” button, it will convert status for file from “PENDING” to “SCHEDULED”.
- Once your uploaded file is being “SCHEDULED” status then after you can’t delete it from system. Because it may have, some of reservations done from uploaded file and after that we are trying to delete. To restrict this it won’t be deleted.
- In History section, it will maintain all history for uploaded file.
- To restrict name conflicts in history, we are prefixing current timestamp along with filename. This is same file which we uploaded template file with filled data in history section.
- Purpose to maintain history in Reservations Upload functionality is that, in future if we required to download directly from here which we uploaded file and also we can check the status for that specific file.

Reservations Upload

[Download Template](#)

Upload Reservations Using Downloaded Template

File: No file selected.

Description:

Direct Bill: Yes

[Delete Uploaded File](#)

Rooming List Id	Type	Confirmation Code	Room Code	Rate Type	Check In Date	Check Out Date	First Name
1	New		STD	BAR	Nov 15 2014	Nov 17 2014	Nayan
2	New		STD	BAR	Nov 20 2014	Nov 23 2014	Jasmin

When we click the 'Create Reservations' button it will change the status of uploaded file 'PENDING' to 'SCHEDULED'. In the backend, there is cron job which will be executed as per the configured time duration.

History

File Name	Description	Output File	Status	Timestamp
2014-11-04_160628ResUpload_Template(1).xls	Reservations		PENDING	2014-11-04 16:06:29.0

Uploaded file named with current date and time in the History. From here you can download uploaded file.

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Features Included:

- Once your uploaded is file executed successfully, It will generate one file with updated data with Reservations Confirmation Number.
- When output file is generated successfully, its status is being changed to the "COMPLETED".
- Generated output file link will be in History section, output file name will be timestamp when it has been executed along with fixed file name.
- You can download processed file from history section. You can verify output file after downloading it. You will get Reservation Confirmation Number from that file.
- During execution of reservation, if any error occurs, it will handle the error with reason and stores reason to fail in the processed file. You can identify the reason why that reservation failed during execution. Passed and Failed reservations have different color in the output file. It is divided into two colors. If row is indicating green color it means it is successfully executed and has done the proper reservations.
- If in the output file any red color Confirmation Number cell, it means there is some problem and it couldn't be executed properly. It is considered as failed reservation, also you will get the error message and reason in that row so you can identify what is the exact problem during the reservation.

Reservations Upload

[Download Template](#)

Upload Reservations Using Downloaded Template

File : No file selected.

Description :

Direct Bill : Yes

Once uploaded file processed, status will be changed to "COMPLETED" and grid view will be invisible which was displaying template file data.

History

File Name	Description	Output File	Status	Timestamp
2014-11-04_160628ResUpload Template(1).xls	Reservations	2014-11-04_173019_Reztrip_ResUpload.xls	COMPLETED	2014-11-04 16:06:29.0

Output file with Reservation Confirmation Number. You can download this file, in which all the reservation details will be stored.