Report Service

Release Note:
Version: 1.2.2
Date: 17/12/2019

Get/Post parameters:

Following parameters/attributes can be passed either as request parameters (HTTP GET) or POST attributes (HTTP POST), it was intentionally allowed to pass parameters/attributes through either GET or POST for testing purposes, after testing and closing UI and backend development, only POST will be allowed on production.

Parameters List

Below is a list of all acceptable parameters by the report service,

Mandatory parameters

Must be supplied for the service to run properly.

Optional parameters

May not be supplied, no need to pass the optional parameter with a value -1, omitting the parameter or sending it with value -1 have the same effect as the service will assume omitting this optional parameter means this parameter will not be used in report search criteria.

1. **$P_DB_NAME**:
   Mandatory – Only single value (must not be surrounded by quotes), the school alias name, please refer to META-INF/context.xml for a full list of alias names and their corresponding IP.
2. **$P_REPORT_NAME**:
   Mandatory – Only single value (must not be surrounded by quotes), the physical report name without extension located in WEB-INF folder, e.g. QUARTER for "QUARTER.jasper" report or SEMESTER for "SEMESTER.jasper" report, etc.

3. **$P_SCALE_ID**:
Optional – Only single numeric value (must not be surrounded by quotes), Omitting this parameter won't stop report rendering, but will have the following effect on rendered report:
a- The student overall grade will be empty (i.e. A+, A, B, C, etc.) won't show on student card header data labeled "**Grade:**"
b- The grading scale table won't show in report (the grid shown below the student subject's grades with title "**Grade Boundaries**")

4. **$P_LEVEL**:
Optional, if supplied must either -1 with no quotes (if not required) or **one or many** values separated by a comma and each value must be surrounded by double quotes, e.g. samples:
   - $P_LEVEL="KG01","G04","G05" (as GET or setting this values with the same double quotes in POST attribute named $P_LEVEL)

   - $P_LEVEL="G04" (as GET or setting this value with the same double quotes in POST attribute named $P_LEVEL)

   - $P_LEVEL=-1 (or omit $P_LEVEL from your passed parameters)

Note that these codes differ depending on target school, and that it represents the level code (combination of the level "KG" and the year "01" in that level)

5. **$P_PERIOD_NAME**:
Optional, if supplied must be either -1 with no quotes (if not required) or **one or many** values separated by a comma and each value must be surrounded by double quotes, e.g. samples:
   - $P_PERIOD_NAME="Quarter 1","Quarter 2","Quarter 3" (as GET or setting this value with the same double quotes in POST attribute named $P_PERIOD_NAME)

   - $P_ PERIOD_NAME="Quarter 3" " (as GET or setting this value with the same double quotes in POST attribute named $P_PERIOD_NAME)

   - $P_ PERIOD_NAME=-1 (or omit $P_PERIOD_NAME from your passed parameters)

6. **$P_CATEGORY_NAME**:
   Optional, if supplied must be either to -1 with no quotes (if not required) or **one or many** values separated by a comma and each value must be surrounded by double quotes, e.g. samples:
   - $P_GATEGORY_NAME="Final Exam","Projects","Quizzes" (as GET or setting this value with the same double quotes in POST attribute named $P_GATEGORY_NAME)

   - $P_GATEGORY_NAME="Quizzes" " (as GET or setting this value with the same double quotes in POST attribute named $P_GATEGORY_NAME)

   - $P_GATEGORY_NAME=-1 (or omit $P_GATEGORY_NAME from your passed parameters)

7. **$P_CLASS_NAME**:
   Optional, if supplied must be either -1 with no quotes (if not required) or **one or many** values separated by a comma and each value must be surrounded by double quotes, e.g. samples:
   - $P_CLASS_NAME="19A","19B","19C" (as GET or setting this value with the same double quotes in POST attribute named $P_CLASS_NAME)

   - $P_CLASS_NAME="Quizzes" " (as GET or setting this value with the same double quotes in POST attribute named $P_CLASS_NAME)

   - $P_CLASS_NAME=-1 (or omit $P_CLASS_NAME from your passed parameters)

8. **$P_STUDENT_ID**:
   Optional, if supplied must be either -1 with no quotes (if not required) or **one or many** values separated by a comma and each value must be surrounded by double quotes, e.g. samples:
   - $P_STUDENT_ID="520","570","581" (as GET or setting this value with the same double quotes in POST attribute named $P_STUDENT_ID)

   - $P_STUDENT_ID="280" (as GET or setting this value with the same double quotes in POST attribute named $P_STUDENT_ID)

   - $P_STUDENT_ID=-1 (or omit $P_STUDENT_ID from your passed parameters)

Note that this value is the numeric unique ID of student in students table.

9. **$P_SHOW_ERRORS**:
Optional, to display the full stack trace of the error in case the report is showing only a brief message like "Report Exception", if you repeat the same request or post but with this additional parameter $P_SHOW_ERRORS=YES, this will enforce the service to show the full stack trace of the error not only the brief message, note that the value (YES) is case insensitive.

10. **$P_SEND_BY_EMAIL**
Optional, this parameter is required to let the report service send the output PDF report to the supplied email list (described in following parameter), in that case no PDF report will be displayed on the browser, and instead a message will be shown in browser upon successful or failed attempt to send the report to the required email list, to activate this behavior, this parameter $P_SEND_BY_EMAIL must be set to YES (case insensitive) without quotes, $P_SEND_BY_EMAIL=YES, in case YES is passed to this parameter but $P_EMAIL_LIST is not passed to the service, an error will be displayed on browser as follows: "*You select to send by Email but you didn't specify a $P_EMAIL_LIST*", note that in case $P_SEND_BY_EMAIL=YES and $P_EMAIL_LIST is set correctly, the PDF report won't show on browser but to the recipients Email, the browser will only show the Email sent status (success/Failure messages)

11. **$P_EMAIL_LIST**:
Optional, if entered will be one or many separated by commas and each email must be provided between double quotes, e.g. samples:
   - $P_EMAIL_LIST="jack@gmail.com","jim@yahoo.com" (as GET or setting this value with the same double quotes in POST attribute named $P_EMAIL_LIST)
   - *$P_EMAIL_LIST="jone@abc.com"*

Note that this parameter will be neglected by the service if passed without passing the previous parameter $P_SEND_BY_EMAIL with a value (YES) case insensitive, also failing to send to one of the recipients emails will let the whole email sending process fail with a message as follows: "*Email Failure, Sorry couldn't manage to send Emails", in case the report is sent successfully to all recipients in $P_EMAIL_LIST the browser will show the message "Email sent*"

Updates in this version:

Added to the parameters described in above section, the following is a brief description for the updates introduced in this version.

1- All school DB connection configuration are in service context.xml located in META-INF folder, criteria screen shall use the same school alias (abbreviated) name in **$P_DB_NAME** parameter.

2- In case there is no configuration table found (system_config) in the school DB, the report will continue to render normally for that school but will show Skolera logo default header and footer images located in "DEFAULT" folder under /WEB-INF folder (instead of the school header/footer).

3- An optional request parameter has been introduced (SHOW_ERRORS=YES) described in parameters section, and if used will show the full error stack trace (if any) on the browser in case the report is not rendered correctly.

4- In case the school has no valid data, the report will show with header/footer and a message "No data available" (instead of showing Nulls in report header & columns)

5- Report (.jasper) are now embedded in the service deployment folder /WEB-INF for ease of packaging, deployment and version control, this will avoid conflicts as the report will be packaged and deployed from inside the WAR and will have its same version/subversion.

6- QR code is updated to contains all Student report card information:
   - School name
   - Academic Year
   - school Alias
   - Student Level Name
   - Student Class Name
   - Period of Grading
   - Student Total score / Overall score (e.g. 680/700)
   - Student Grade (e.g. A+/A/B+/B/C etc.)

7- Service support both POST & GET methods (GET will be removed once the version is final – to ease testing)

8- Sending email is now working as explained in input parameters

9- Email server & sender account configuration is defined as Initial parameters in WEB.xml as shown below:
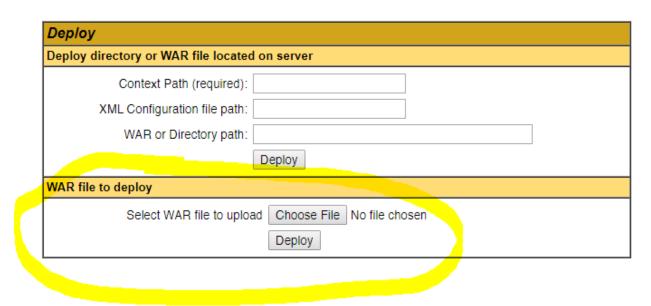
```
<init-param>
        <param-name>EMAIL_HOST</param-name>
        <param-value>mail.skolera.com</param-value>
</init-param>
<init-param>
        <param-name>EMAIL_PORT</param-name>
        <param-value>587</param-value>
</init-param>
 <init-param>
        <param-name>EMAIL_USER</param-name>
        <param-value>info@skolera.com</param-value>
</init-param>
<init-param>
        <param-name>EMAIL_PASSWORD</param-name>
        <param-value>password</param-value>
</init-param>
```
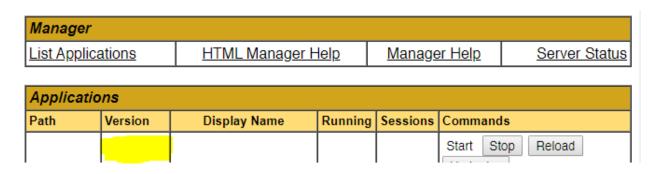
Deployment Notes:

1. "GRADING.jasper" report was renamed to "QUARTER.jasper", as explained earlier the new report "QUARTER.jasper" is already embedded in WAR file and will get extracted automatically in the proper location once you deploy the service "SKOLERA##1.2.2.war", the only extra step to apply this change (added to deployment) is to update the school databases for the table system_config by applying the following statements:
   a. UPDATE system_config SET NAME = "QUARTER" WHERE NAME="GRADING";
   b. commit;
2. Please perform the deployment from "Tomcat Manager" through your local web browser:
   1. Open the browser on this URL link http://167.172.214.120:8080/manager/html
   2. Enter Admin credentials
   3. Undeploy the previous version before deploying the new version from "Undeploy button" next to the service

4. Upload and deploy the new WAR file from the "War file to deploy" section as shown in below figure:

3. Prior to deployment, please asssure the WAR file deployed/uploaded is in the format <SERVICE>##<version>.<subversion>.<minor> (e.g. SKOLERA##1.2.0.war) as deploying from Tomcat Manager with this name will allow Tomcat Manager to extract the version from the WAR file name, hence the version will be shown in version column of the deployed services grid in Tomcat Manager, as below

How to assure the deployment is successful and report is showing correctly or sent to intended recipients?

1- The Service deployed in Tomcat manager should show a status in column "Running" and the value is "true"

2- You're able to access the following URL in both modes:

  a. First (Report to browser)

  You should be able to call this URL and have a successful response with the PDF report shown in browser also the "Grade:" is showing a value (A+, A, B, etc.),

  URL sample:

  http://167.172.214.120:8080/skolera/report?$P_DB_NAME=sgas&$P_REPORT_NAME=QUARTER&$P_SCALE_ID=790&$P_PERIOD_NAME="Quarter%201"&$P_STUDENT_ID="570","581"&$P_LEVEL="G04","G05"

  b. Second (Report to Emails)

  You should be able to receive email (in all email lists in URL, please replace with your email recipients list)

  URL sample:

  http://167.172.214.120:8080/skolera/report?$P_DB_NAME=sgas&$P_REPORT_NAME=QUARTER&$P_SCALE_ID=790&$P_PERIOD_NAME="Quarter%201"&$P_STUDENT_ID="570","581"&$P_LEVEL="G04","G05"&$P_EMAIL_LIST="abdelrhman.eltebe@gmail.com"&$P_SEND_BY_EMAIL=YES