

# **Deliverables self-checklist for programmers**

Version 1.0

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No	Broad category	Specific category	Check point	Details of check	Nablarch dependent	Note	Check for each process architecture			Checked by	Date	Comment
							Screen	Rest	Batch			
1	All	General	Line break code in files	- The line break code in files must be the code specified for the project.		* Example Files such as Java, SQL, JSP, Shell and config files must all be checked in the same way.	X	X	X			
2	All	General	Character code in files	- The character code in files must be the code specified for the project.		* Example Files such as Java, SQL, JSP, Shell and config files must all be checked in the same way.	X	X	X			
3	Java	General	Judgment of "" or Null	- The following API provided by Nablarch must be used for "" or Null judgments. - Check whether a value is set ->StringUtil#hasValue - Check whether no value is set ->StringUtil#isEmpty - Unnecessary logical operators must not be used. Example of unacceptable operator: if(!StringUtil.isEmpty(hoge)) Use StringUtil#hasValue in this case.	X	* When checking whether a value is set Incorrect: if (!"".equal(value)) {} if (value != null) {} if (!StringUtil.isEmpty(value)) {}  Correct: if (StringUtil.hasValue()) {}  * When checking whether a value is not set Incorrect: if ("".equal(value)) {} if (value == null) {} if (!StringUtil.hasValue(value)) {}  Correct: if (StringUtil.isEmpty(value)) {}	X	X	X			
4	Java	General	Joining of character strings	- The character string "null" cannot be used to join character strings that contain a null character.		* How to address this To join character strings that may be null, use a method such as (Apache Commons) StringUtils.join.	X	X	X			

5	Java	General	Close process during reading and writing of files	<p>- During reading and writing of files, refer to the points below to check whether there is a close process.</p> <p>(1) When writing to HttpServletResponse using DataRecordResponse -&gt;Not needed as a close process is performed on the framework side.</p> <p>(2) When writing a file using FileRecordWriterHolder -&gt;Not needed as a close process is performed on the framework side. -&gt;However, FileRecordWriterHolder can only be used during batch processing (it cannot be used during screen processing).</p> <p>(3) When reading and writing files using DataRecordFormatter -&gt;A close process must be executed.</p> <p>(4) When reading and writing files using a different class (standard Java class) -&gt;A close process must be executed.</p>	X		X	X	X			
6	Java	General	Method arguments	<p>- Unused arguments must not be defined.</p> <p>- The minimum necessary arguments for the method must be defined.</p>		* Example: If only one property in Dto is used, use only the property (not Dto) as an argument.	X	X	X			
7	Java	General	Boolean method arguments	- Boolean must be passed to the method arguments, and branching must not be used when processing these values.		* Reason In many cases, it is best to branch at the origin of the call and call separate methods.	X	X	X			
8	Java	General	Magic numbers	- Magic numbers must be changed to constants and given suitable variable names.			X	X	X			
9	Java	General	Variable names that are too abstract	- Variable names that are too abstract must not be used.		* Variable names that are too abstract Example of an unacceptable name: Pattern PATTERN This variable name does not indicate the purpose of the pattern. The intent needs to be clear from the variable name. Example of a correction: EXTRACT_HOSTNAME_PATTERN	X	X	X			
10	Java	General	Type-specific variable and method names	- Type-specific names must not be used for variable names or method names.		* Examples Examples of unacceptable names: XXXMap, XXXStr, etc.	X	X	X			
11	Java	General	Names of methods returning Boolean	<p>- Names such as isXXX, hasXXX or canXXX must be used.</p> <p>- A name that clearly indicates the return value (true or false) must be used in the area indicated by XXX.</p>		* Example Example of an acceptable name: hasError ->It can be envisioned that true will be returned in the event of an error.	X	X	X			
12	Java	General	Character string comparison with constants	- Constant.equals(hoge) must be used (not hoge.equals(constant)).		* Reason hoge.equals(constant) may cause a NullPointerException.	X	X	X			

13	Java	General	Method for judging zero items	- Collection#isEmpty() must be used for this judgment when handling collections.		* Reason The code will be too long if zero items are judged after acquiring the size.	X	X	X			
14	Java	General	Dates	- The date format set to be used must not be incorrect.		* Examples Business date, system dates, etc.	X	X	X			
15	Java	General	Nest for method calls	- Up to two method call nests can be used.		* Reason Readability decreases if too many method calls are included in a method argument.  Example of unacceptable code: setZZZ(convertXXX(getXXX(hoge,huga),getYYY(moge,moga).toString().substring(0,12)));  Example of acceptable code: String foo = getXXX(hoge,huga); String bar = getYYY(moge,moga).toString().substring(0,12); setZZZ(convertXXX(foo, bar));	X	X	X			
16	Java	General	Sorting order of methods	- The order "public, protected, private" must be used.			X	X	X			
17	Java	Action	Error destination	- A forwarding destination must be set correctly for errors such as exclusive errors and validation errors.			X					
18	Java	Action	Automatically set items	- Values that are set automatically, such as @CurrentDateTime, cannot be set with individual business logic.	X		X	X	X			
19	Java	Action	Instance variables	- Actions must not have instance variables.	X	* Exception Cases in which functions such as the counter of batch output items need to be achieved using an instance variable.	X	X	X			
20	Java	Form	Domain definitions for forms	- Domain definitions specified in the specifications must be checked and the close investigation process defined in the domain definitions must be correctly implemented.			X	X	X			
21	Java	Database access	Exclusive control	- Exclusive control using UniversalDao must be implemented for update processes.	X	* Implementation method 1. Store the records to be updated in an entity. *For screens, the above entity is stored in a session store when displayed for the first time and is held for the duration of the request. 2. Overwrite the items to be updated in the entity. *Version numbers do not need to be overwritten in the entity as these are updated automatically by the framework. 3. Execute the update process using UniversalDao.update(entity).	X	X				

22	Java	Database access	Database access	<ul style="list-style-type: none"> <li>- As a general rule, UniversalDao must be used for database access.</li> <li>- A batch execution method (UniversalDao#batchInsert, etc.) must be used if the same SQL syntax is issued multiple times.</li> </ul>	X	<ul style="list-style-type: none"> <li>* Operations provided by UniversalDao</li> <li>- Registration/batch registration</li> <li>- Registration/batch registration with a primary key specified</li> <li>*Used only for updating under exclusive control</li> <li>- Deletion/batch deletion with a primary key specified</li> <li>- Searching with a main key specified</li> <li>- Searching using SQL syntax</li> </ul>	X	X	X			
23	Java	Database access	Multiple search results	<ul style="list-style-type: none"> <li>- If SQL enabling multiple search results to be acquired is issues, the number of results must be judged correctly.</li> <li>- If one result is sufficient, SQL must be implemented so that only one result can be acquired.</li> <li>- SqlResultSet#get(0) must not be executed for SELECT expressions for which multiple results are returned.</li> </ul>	X	<ul style="list-style-type: none"> <li>* Reason</li> </ul> <p>If SqlResultSet#get(0) is executed for SELECT expressions that return multiple results, this may be due to issues such as missing search condition specifications or insufficient considerations during the design stage. Check the specifications.</p>	X	X	X			
24	Java	Database access	Zero search results	<ul style="list-style-type: none"> <li>- Implementation when there are zero search results must be taken into account.</li> <li>Check the specifications and confirm that one of the following methods is used.</li> <li>(1) If the specifications indicate that zero results are possible <ul style="list-style-type: none"> <li>- Zero results must be handled as indicated in the design specifications (e.g. error handling consisting of an on-screen user notification)</li> </ul> </li> <li>(2) If the specifications indicate that zero results are not possible <ul style="list-style-type: none"> <li>- Handling of zero results must not be implemented.</li> </ul> </li> </ul>	X	<ul style="list-style-type: none"> <li>* Examples of handling of zero search results</li> <li>- Displaying "No search results" on screen</li> <li>- Raising an application exception</li> </ul>	X	X	X			
25	Java	Database access	Method for acquiring number of search results in list search	<ul style="list-style-type: none"> <li>- UniversalDao#countBySqlFile must be used.</li> <li>- SqlResultSet#isEmpty must not be used, as this method judges the number of results on the current page.</li> </ul>	X		X	X	X			
26	Java	Database access	Acquisition of values from SqlRow	<ul style="list-style-type: none"> <li>- A suitable acquisition method must be used (not casting with SqlRow#get()).</li> </ul>	X	<ul style="list-style-type: none"> <li>* Examples</li> </ul> <p>SqlRow#getString(), SqlRow#getBigDecimal(), etc.</p>	X	X	X			
27	JSP	General	Button submission control	<ul style="list-style-type: none"> <li>- type="button" must be specified when using the following custom tags so that submission is not executed when the enter key is pressed.</li> <li>- n:button</li> <li>- n:popupButton</li> <li>- n:downloadButton</li> </ul>	X	<ul style="list-style-type: none"> <li>* Examples</li> </ul> <p>type="button" specified as a tag attribute. Example of unacceptable code: &lt;n:button uri="hoge/000"&gt;fuga&lt;/n:button&gt; Example of acceptable code: &lt;n:button type="button" uri="hoge/000"&gt;fuga&lt;/n:button&gt;</p>	X					
28	JSP	General	Linking of popup windows for input items	<ul style="list-style-type: none"> <li>- n:changeParamName must be used when changing the request parameter name of information input in a screen and sending the information to a popup window.</li> </ul>	X	<ul style="list-style-type: none"> <li>* Reason</li> </ul> <p>When the request parameter name is changed using n:param before being sent, the value that is sent is the value indicated when the screen is displayed for the first time.</p>	X					

29	JSP	General	Submission outside the application	- n:a must be used (not n:submit) for submissions outside applications.	X	* Reason The n:a tag needs to be used because submissions outside the application do not have a request ID and are all inactive when used as "submit" links.  * Exceptions - When linking values to the main screen from a popup window - The close button - Links in the page	X						
30	JSP	General	Screens with only one input item	- For screens with only one input item with an <input type="text"> format (<n:text>, etc.), this must be placed above the text box containing dummy text (display:none & disable) as an error occurs if Enter is pressed with the focus on the text box.	X	* Examples - Screens where there is only a search condition (search box) and a search button - Screens where there is only search condition 1 (radio button), search condition 2 (text box) and a search button  *This is not dependent on the version of Nablarch. It is caused by the browser.	X						
31	Testing	General	Assertion of expected values	- A suitable assertion method must be called for assertion targets.		* Examples - assertEquals type - assertEquals - assertEquals	X	X	X				
32	Testing	General	Table assertion	- EXPECTED_COMPLETE_TABLE must be used for table assertion.	X	* Reason Omitted columns are not targets for comparisons when EXPECTED_TABLE is used, but are compared as columns containing default values when EXPECTED_COMPLETE_TABLE is used.	X	X	X				
33	Testing	General	Exception testing	- @Test(expected=IllegalArgumentException.class) must be used (sending of exceptions must not be confirmed using try-catch). However, ExpectedException must be used when confirming the details of exceptions.  - If multiple types of exception occur for one method, a separate test method must be used for each type of exception.	X		X	X	X				
34	Testing	General	Reviewed content	- Content to be reviewed must be checked to confirm that there are no omissions.		* Reason The following files are easily omitted, so care needs to be taken. - SQL files - XML files - fmt files	X	X	X				

X: Dependency