

# WEB CODE METRICS

Hybrid Application for Warehouse Management System



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# **Web Metrics at System Level**

Metrics Name	<u>Description</u>
Total WebPage#	45 Web Pages + 11 dependency page
Total LOC#	4871 static lines + 373 server lines = 5154 Lines
ServerScript#	14 Server scripts 11 dependency Server Scripts
ClientScript#	31 ClientScripts
WebObject#	99 Static_Page Web Objects + 14 Server_Page Web Objects = 113 Web Objects
InterfceObject#	62 Interface_Objects
TotalData#	91 (PHP) + 172 (static) = 263 Data Variables
I/OField#	32 Input Fields + 25 Output Fields = 57 I/O Fields
TotalConnectivity#	336
TotalLanguages#	HTML, JavaScript, CSS, JQuery, PHP, AJAX, My SQL (7)

# Component level metrics for ERP\_Products.html

Metrics Name	<u>Description</u>
WebPageTag#	38 tags
WebPageScript#	2 scripts
PageWeb Object#	3 Web Objects
WebPage I/O#	4 I/O webpages
WebPageRelationships#	8
PageCodeSize#	123 Lines SLOC → 118
PageInterface#	2 Interfaces
WebObjectSize#	34 LOC of PHP + 1 = 35 Lines
WebPageData#	5 Data Variables
WebPageCouplingData#	4 (datastring, localstorage)
InnerComponents#	2+4+1+2 = 9 components
WebPageComplexity#	The most complex function has a cyclometric complexity value of 4 while the median is 1.
WebPageControlStructures#	1 Control Structure
PageLanguages#	HTML, JavaScript, CSS, JQuery, PHP, AJAX, My SQL
ScriptSize#	63 Lines

# Component level metrics for **Index.html**

Metrics Name	<u>Description</u>
WebPageTag#	34 Tags
WebPageScript#	1 Scripts
PageWeb Object#	3 Web Objects
WebPage I/O#	5 I/O Objects
WebPageRelationships#	6
PageCodeSize#	94 Lines, SLOC →86
PageInterface#	2 Interfaces
WebObjectSize#	35 PHP Lines + 1 = 36 LOC
WebPageData#	4 Data variables
WebPageCouplingData#	2 1+1+3+1
InnerComponents#	= 6 components
WebPageComplexity#	The most complex function has a cyclometric complexity value of 4 while the median is 1.5.
WebPageControlStructures#	0 Control Structures
PageLanguages#	HTML, JavaScript, CSS, JQuery, PHP, AJAX, My SQL
ScriptSize#	46 Lines

# Component level metrics for **Product\_details.html**

Metrics Name	<u>Description</u>
WebPageTag#	39 Tags
WebPageScript#	6 Scripts
PageWeb Object#	3 Web Objects
WebPage I/O#	10 I/O Objects
WebPageRelationships#	9
PageCodeSize#	112 Lines, SLOC →108
PageInterface#	2 Interfaces
WebObjectSize#	33 LOC of PHP + 1 = 34 Lines
WebPageData#	4 Data Variables
WebPageCouplingData#	3
InnerComponents#	1 + 2 + 6 + 3 $= 12 components$
WebPageComplexity#	The most complex function has a cyclometric complexity value of 2 while the median is 1.
WebPageControlStructures#	0 Control Structures
PageLanguages#	HTML, JavaScript, CSS, JQuery, PHP, AJAX, My SQL
ScriptSize#	58 Lines

#### Component level metrics for **Profile.html**

Metrics Name	<u>Description</u>
WebPageTag#	36 Tags
WebPageScript#	3 Scripts
PageWeb Object#	3 Web Objects
WebPage I/O#	3 I/O Objects
WebPageRelationships#	6
PageCodeSize#	111 Lines, SLOC →101
PageInterface#	2 Interfaces
WebObjectSize#	31 LOC of PHP + 1 = 32 Lines
WebPageData#	4 Data Variables
WebPageCouplingData#	$\frac{2}{3+3+1+2}$
InnerComponents#	3 + 3 + 1 + 2 $= 9 components$
WebPageComplexity#	The most complex function has a cyclometric complexity value of 2 while the median is 1.
WebPageControlStructures#	0 Control Structures
PageLanguages#	HTML, JavaScript, CSS, JQuery, PHP, AJAX, My SQL
ScriptSize#	41 Lines

# Component level metrics for Purchase\_order.html

Metrics Name	<u>Description</u>
WebPageTag#	37 Tags
WebPageScript#	3 Scripts
PageWeb Object#	0 Web Objects
WebPage I/O#	1 I/O Object
WebPageRelationships#	5
PageCodeSize#	70 Lines, SLOC →67
PageInterface#	2 Interfaces
WebObjectSize#	0 Lines
WebPageData#	2 Data Variables
WebPageCouplingData#	1
InnerComponents#	$ \begin{array}{c} 1\\ 1+2+3+0\\ = 6 \text{ Components} \end{array} $
WebPageComplexity#	Cyclometric complexity value → 4
WebPageControlStructures#	0 Control Structures
PageLanguages#	HTML, JavaScript, CSS, JQuery, PHP, AJAX, My SQL
ScriptSize#	16 Lines

# Component level metrics for **Pie.html**

Metrics Name	<b>Description</b>
WebPageTag#	61 Tags
WebPageScript#	8 Scripts
PageWeb Object#	3 Web Objects
WebPage I/O#	6 Web I/O Objects
WebPageRelationships#	14
PageCodeSize#	213 Lines, SLOC →201
PageInterface#	2 Interfaces
WebObjectSize#	43 PHP LOC + 1 = 44 Lines
WebPageData#	9 Data Variables
WebPageCouplingData#	3
InnerComponents#	1+1+8+3 = 13 Components
WebPageComplexity#	The most complex function has a cyclometric complexity value of 3 while the median is 1.
WebPageControlStructures#	3 Control Structures
PageLanguages#	HTML, JavaScript, CSS, JQuery, PHP, AJAX, My SQL
ScriptSize#	135 Lines

#### Component level metrics for Bar.html

Metrics Name	<u>Description</u>
WebPageTag#	59 Tags
WebPageScript#	8 Scripts
PageWeb Object#	3 Web Objects
WebPage I/O#	6 Web Objects
WebPageRelationships#	15
PageCodeSize#	210 Lines, SLOC →198
PageInterface#	2 Interfaces
WebObjectSize#	43 PHP LOC + 1 = 44 Lines
WebPageData#	9 Data Variables
WebPageCouplingData#	3
InnerComponents#	1 + 1 + 8 + 3 $= 13 Components$
WebPageComplexity#	The most complex function has a cyclometric complexity value of 3 while the median is 1.
WebPageControlStructures#	4 Control Structures
PageLanguages#	HTML, JavaScript, CSS, JQuery, PHP, AJAX, My SQL
ScriptSize#	133 Lines

# Component level metrics for **Table.html**

Metrics Name	<u>Description</u>
WebPageTag#	61 Tags
WebPageScript#	3 Scripts
PageWeb Object#	2 Web Objects
WebPage I/O#	5 Web Objects
WebPageRelationships#	9
PageCodeSize#	152 Lines, SLOC →147
PageInterface#	2 Interfaces
WebObjectSize#	36 PHP LOC + 1 = 37 Lines
WebPageData#	5 Data Variables
WebPageCouplingData#	3
InnerComponents#	1 + 3 + 2 + 3 $= 9 $ Components
WebPageComplexity#	The most complex function has a cyclometric complexity value of 4 while the median is 1.
WebPageControlStructures#	3 Control Structures
PageLanguages#	HTML, JavaScript, CSS, JQuery, PHP, AJAX, My SQL
ScriptSize#	55 Lines

# Component level metrics for Purchase\_order.html

Metrics Name	<b>Description</b>
WebPageTag#	37 Tags
WebPageScript#	3 Scripts
PageWeb Object#	0 Web Objects
WebPage I/O#	1 I/O Object 2 (including append as output)
WebPageRelationships#	10
PageCodeSize#	85 Lines, SLOC →82
PageInterface#	2 Interfaces
WebObjectSize#	0 Lines
WebPageData#	2 Data Variables
WebPageCouplingData#	1
InnerComponents#	$   \begin{array}{c}     1 \\     1 + 2 + 3 + 0 \\     = 6 \text{ Components}   \end{array} $
WebPageComplexity#	Cyclometric Complexity has value 1
WebPageControlStructures#	0 Control Structure
PageLanguages#	HTML, JavaScript, CSS, JQuery, PHP, AJAX, My SQL
ScriptSize#	16 Lines

# Component level metrics for SalesOrder.html

Metrics Name	<u>Description</u>
WebPageTag#	37 Tags
WebPageScript#	3 Scripts
PageWeb Object#	0 Web Objects
WebPage I/O#	1 I/O Objects 2 (including append as output)
WebPageRelationships#	10
PageCodeSize#	85 Lines, SLOC →82
PageInterface#	2 Interfaces
WebObjectSize#	0 Lines
WebPageData#	2 Data Variables
WebPageCouplingData#	1
InnerComponents#	$   \begin{array}{r}     1 \\     1 + 2 + 3 + 0 \\     = 6 \text{ Components}   \end{array} $
WebPageComplexity#	Cyclometric Complexity has value 1
WebPageControlStructures#	0 Control Structure
PageLanguages#	HTML, JavaScript, CSS, JQuery, PHP
ScriptSize#	16 Lines

# Component level metrics for Warehouse details.html

Metrics Name	<u>Description</u>
WebPageTag#	37 Tags
WebPageScript#	3 Scripts
PageWeb Object#	3 Web Objects
WebPage I/O#	4 I/O Objects
WebPageRelationships#	7
PageCodeSize#	97 Lines, SLOC →91
PageInterface#	2 Interfaces
WebObjectSize#	33 PHP LOC + 1 = 34 Lines
WebPageData#	5 Data Variables
WebPageCouplingData#	3 $2+1+3+2$
InnerComponents#	2+1+3+2 = 8 Components
WebPageComplexity#	The most complex function has a cyclometric complexity value of 2 while the median is 1.
WebPageControlStructures#	1 Control Structure
PageLanguages#	HTML, JavaScript, CSS, JQuery, PHP, AJAX
ScriptSize#	42 Lines

# Component level metrics for Warehouse\_mg.html

Metrics Name	<u>Description</u>
WebPageTag#	30 Tags
WebPageScript#	3 Scripts
PageWeb Object#	0 Web Objects
WebPage I/O#	1 I/O Objects 2 (including append as output)
WebPageRelationships#	9
PageCodeSize#	73 Lines, SLOC →70
PageInterface#	2 Interfaces
WebObjectSize#	0 Lines
WebPageData#	2 Data Variables
WebPageCouplingData#	$\frac{1}{1+2+3+0}$
InnerComponents#	1 + 2 + 3 + 0 $= 6 Components$
WebPageComplexity#	Cyclometric Complexity has value 1.
WebPageControlStructures#	0 Control Structure
PageLanguages#	HTML, JavaScript, CSS, JQuery, PHP, AJAX
ScriptSize#	18 Lines

#### **Coupling**

Our system follows DATA COUPLING as all the variables that are used in the functions are local variables none of them are global variables and all functions will just receive the arguments.

#### **Cohesion**

Our system follows both PROCEDURAL and COMMUNICATIONAL COHESION. Both front end and back end retrieve data from AJAX so it is communicational, and elements of particular component are related only to ensure a particular order of execution.