# **Appendix**

**Table 8: Original Webpage Performance Evaluation Results**

| **Page ID** | **Evaluation Timestamp** | **Performance** | | | | | | **Accessibility** | **Best Practice** | **SEO** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **FCP**  **(s)** | **LCP**  **(s)** | **TBT (ms)** | **CLS** | **SI**  **(s)** | **Score** |
| 1 | 20/07/2025 03:32:39 | 1.2 | 2.4 | 50 | 0.285 | 2.0 | 66 | 82 | 89 | 83 |
| 1 | 20/07/2025 16:48:29 | 1.0 | 2.7 | 90 | 0.060 | 2.3 | 77 | 82 | 89 | 83 |
| 1 | 21/07/2025  12:42:03 | 1.3 | 2.1 | 70 | 0.308 | 2.4 | 65 | 82 | 89 | 83 |
| 1 | 21/07/2025  04:06:47 | 1.0 | 2.3 | 30 | 0.213 | 2.2 | 72 | 82 | 89 | 83 |
| 1 | 21/07/2025  17:05:55 | 0.8 | 2.1 | 20 | 0.338 | 1.4 | 71 | 82 | 89 | 83 |
| 1 | 22/07/2025  19:27:17 | 1.2 | 2.6 | 50 | 0.268 | 1.7 | 67 | 82 | 89 | 83 |
| **Page 1 Evaluation Results Average** | | **1.08** | **2.37** | **51.7** | **0.245** | **2.0** | **69.7** | **82** | **89** | **83** |
| 2 | 20/07/2025 03:49:11 | 0.8 | 2.0 | 20 | 0.170 | 1.0 | 82 | 82 | 89 | 92 |
| 2 | 20/07/2025 17:11:33 | 1.0 | 2.3 | 50 | 0.196 | 1.3 | 76 | 82 | 89 | 92 |
| 2 | 21/07/2025  12:57:11 | 0.7 | 2.3 | 30 | 0.003 | 1.3 | 87 | 82 | 89 | 92 |
| 2 | 21/07/2025  04:28:39 | 0.8 | 2.1 | 30 | 0.177 | 1.1 | 81 | 82 | 89 | 92 |
| 2 | 21/07/2025  17:14:51 | 0.5 | 2.0 | 20 | 0.166 | 0.7 | 83 | 82 | 89 | 92 |
| 2 | 22/07/2025  19:36:08 | 0.5 | 2.1 | 30 | 0.003 | 1.1 | 89 | 82 | 89 | 92 |
| **Page 2 Evaluation Results Average** | | **0.71** | **2.13** | **30** | **0.119** | **1.08** | **83** | **82** | **89** | **92** |
| 3 | 20/07/2025 04:00:28 | 0.9 | 1.4 | 10 | 0.343 | 1.1 | 77 | 83 | 93 | 83 |
| 3 | 20/07/2025 17:24:20 | 0.9 | 1.4 | 60 | 0.343 | 1.2 | 77 | 83 | 93 | 83 |
| 3 | 21/07/2025  01:14:48 | 1.2 | 1.5 | 40 | 0.341 | 1.4 | 74 | 83 | 93 | 83 |
| 3 | 21/07/2025  04:37:48 | 1.1 | 1.5 | 0 | 0.374 | 1.3 | 74 | 83 | 93 | 83 |
| 3 | 21/07/2025  17:24:25 | 1.1 | 1.3 | 0 | 0.299 | 1.3 | 65 | 83 | 93 | 83 |
| 3 | 22/07/2025  19:47:08 | 0.9 | 1.3 | 20 | 0.347 | 1.4 | 77 | 83 | 93 | 83 |
| **Page 3 Evaluation Results Average** | | **1.02** | **1.4** | **21.7** | **0.341** | **1.28** | **74** | **83** | **93** | **83** |

**Table 9: GPT-4 Refactored Webpage Performance Evaluation Results**

| **Page ID** | **Evaluation Timestamp** | **Performance** | | | | | | **Accessibility** | **Best Practice** | **SEO** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **FCP**  **(s)** | **LCP**  **(s)** | **TBT**  **(ms)** | **CLS** | **SI**  **(s)** | **Score** |
| 1 | 20/07/2025 03:33:08 | 0.7 | 1.5 | 0 | 0.044 | 0.8 | 94 | 85 | 100 | 100 |
| 1 | 20/07/2025 16:49:03 | 0.7 | 1.6 | 0 | 0.044 | 0.8 | 93 | 85 | 100 | 100 |
| 1 | 21/07/2025  12:42:36 | 0.7 | 1.6 | 0 | 0.044 | 0.8 | 93 | 85 | 100 | 100 |
| 1 | 21/07/2025  04:07:17 | 0.7 | 1.6 | 0 | 0.045 | 0.8 | 94 | 85 | 100 | 100 |
| 1 | 21/07/2025  17:06:25 | 0.7 | 1.7 | 0 | 0.044 | 0.8 | 93 | 85 | 100 | 100 |
| 1 | 22/07/2025  19:27:41 | 0.7 | 1.7 | 0 | 0.044 | 0.8 | 93 | 85 | 100 | 100 |
| **Page 1 Evaluation Results Average** | | **0.7** | **1.62** | **0** | **0.044** | **0.8** | **93.33** | **85** | **100** | **100** |
| 2 | 20/07/2025 03:49:28 | 0.6 | 0.7 | 0 | 0.002 | 0.6 | 99 | 89 | 100 | 100 |
| 2 | 20/07/2025 17:11:52 | 0.7 | 0.7 | 0 | 0.002 | 0.7 | 99 | 89 | 100 | 100 |
| 2 | 21/07/2025  12:57:30 | 0.7 | 0.8 | 0 | 0.002 | 0.7 | 99 | 89 | 100 | 100 |
| 2 | 21/07/2025  04:29:03 | 0.6 | 0.7 | 0 | 0.002 | 0.6 | 100 | 89 | 100 | 100 |
| 2 | 21/07/2025  17:15:07 | 0.7 | 0.7 | 0 | 0.002 | 0.7 | 100 | 89 | 100 | 100 |
| 2 | 22/07/2025  19:36:24 | 0.7 | 0.7 | 0 | 0.002 | 0.7 | 99 | 89 | 100 | 100 |
| **Page 2 Evaluation Results Average** | | **0.67** | **0.72** | **0** | **0.002** | **0.67** | **99.33** | **89** | **100** | **100** |
| 3 | 20/07/2025 04:00:46 | 1.3 | 1.3 | 0 | 0.074 | 1.3 | 91 | 85 | 100 | 100 |
| 3 | 20/07/2025 17:24:39 | 0.9 | 0.9 | 0 | 0.063 | 0.9 | 97 | 85 | 100 | 100 |
| 3 | 21/07/2025  01:15:09 | 0.9 | 0.9 | 0 | 0.074 | 0.9 | 97 | 85 | 100 | 100 |
| 3 | 21/07/2025  04:38:06 | 0.9 | 0.9 | 0 | 0.063 | 0.9 | 97 | 85 | 100 | 100 |
| 3 | 21/07/2025  17:24:44 | 1.0 | 1.0 | 0 | 0.063 | 1.0 | 96 | 85 | 100 | 100 |
| 3 | 22/07/2025  19:47:29 | 0.9 | 0.9 | 0 | 0.063 | 0.9 | 97 | 85 | 100 | 100 |
| **Page 3 Evaluation Results Average** | | **0.98** | **1.05** | **0** | **0.067** | **0.98** | **95.8** | **85** | **100** | **100** |

**Table 10: Cloude 4 Refactored Webpage Performance Evaluation Results**

| **Page ID** | **Evaluation Timestamp** | **Performance** | | | | | | **Accessibility** | **Best Practice** | **SEO** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **FCP**  **(s)** | **LCP**  **(s)** | **TBT**  **(ms)** | **CLS** | **SI**  **(s)** | **Score** |
| 1 | 20/07/2025 03:33:27 | 0.4 | 1.1 | 0 | 0.065 | 0.7 | 98 | 100 | 100 | 100 |
| 1 | 20/07/2025 16:49:24 | 0.5 | 1.1 | 10 | 0.058 | 0.8 | 97 | 100 | 100 | 100 |
| 1 | 21/07/2025  12:43:07 | 0.4 | 1.3 | 10 | 0.058 | 0.7 | 96 | 100 | 100 | 100 |
| 1 | 21/07/2025  04:07:35 | 0.4 | 1.1 | 0 | 0.057 | 0.7 | 98 | 100 | 100 | 100 |
| 1 | 21/07/2025  17:06:44 | 0.4 | 1.7 | 0 | 0.058 | 0.7 | 93 | 100 | 100 | 100 |
| 1 | 22/07/2025  19:27:57 | 0.4 | 1.6 | 0 | 0.064 | 0.7 | 94 | 100 | 100 | 100 |
| **Page 1 Evaluation**  **Results Average** | | **0.42** | **1.32** | **3.33** | **0.060** | **0.75** | **96** | **100** | **100** | **100** |
| 2 | 20/07/2025 03:49:41 | 0.7 | 1.0 | 0 | 0.00 | 0.8 | 98 | 96 | 100 | 100 |
| 2 | 20/07/2025 17:12:09 | 0.7 | 1.0 | 0 | 0.00 | 0.9 | 98 | 96 | 100 | 100 |
| 2 | 21/07/2025  12:57:47 | 1.0 | 1.5 | 0 | 0.00 | 1.1 | 93 | 96 | 100 | 100 |
| 2 | 21/07/2025  04:29:16 | 0.7 | 1.0 | 0 | 0.00 | 0.8 | 98 | 96 | 100 | 100 |
| 2 | 21/07/2025  17:15:20 | 0.7 | 1.0 | 0 | 0.00 | 0.8 | 98 | 96 | 100 | 100 |
| 2 | 22/07/2025  19:36:37 | 0.7 | 1.0 | 0 | 0.00 | 0.8 | 98 | 96 | 100 | 100 |
| **Page 2 Evaluation**  **Results Average** | | **0.75** | **1.08** | **0** | **0.00** | **0.87** | **97.17** | **96** | **100** | **100** |
| 3 | 20/07/2025 04:01:01 | 0.6 | 0.6 | 0 | 0.411 | 0.6 | 81 | 96 | 100 | 63 |
| 3 | 20/07/2025 17:24:54 | 0.7 | 0.7 | 0 | 0.344 | 0.7 | 83 | 96 | 100 | 63 |
| 3 | 21/07/2025  01:15:23 | 0.7 | 0.7 | 0 | 0.344 | 0.7 | 83 | 96 | 100 | 63 |
| 3 | 21/07/2025  04:38:19 | 0.6 | 0.6 | 0 | 0.344 | 0.6 | 83 | 96 | 100 | 63 |
| 3 | 21/07/2025  17:24:57 | 0.7 | 0.7 | 0 | 0.347 | 0.7 | 82 | 96 | 100 | 63 |
| 3 | 22/07/2025  19:47:44 | 0.7 | 0.7 | 0 | 0.344 | 0.7 | 82 | 96 | 100 | 63 |
| **Page 3 Evaluation**  **Results Average** | | **0.67** | **0.67** | **0** | **0.356** | **0.67** | **82.33** | **96** | **100** | **63** |

**Table 11: Gemini 2.5 Refactored Webpage Performance Evaluation Results**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Page ID** | **Evaluation Timestamp** | **Performance** | | | | | | **Accessibility** | **Best Practice** | **SEO** |
| **FCP**  **(s)** | **LCP**  **(s)** | **TBT**  **(ms)** | **CLS** | **SI**  **(s)** | **Score** |
| 1 | 20/07/2025 03:33:43 | 0.7 | 1.5 | 0 | 0.0 | 0.8 | 95 | 100 | 100 | 100 |
| 1 | 20/07/2025 16:49:41 | 0.7 | 1.6 | 0 | 0.0 | 0.8 | 94 | 100 | 100 | 100 |
| 1 | 21/07/2025  12:43:25 | 0.7 | 1.5 | 0 | 0.0 | 0.8 | 96 | 100 | 100 | 100 |
| 1 | 21/07/2025  04:07:49 | 0.7 | 1.4 | 0 | 0.0 | 0.8 | 95 | 100 | 100 | 100 |
| 1 | 21/07/2025  17:07:04 | 0.7 | 1.6 | 0 | 0 | 0.8 | 94 | 100 | 100 | 100 |
| 1 | 22/07/2025  19:28:15 | 0.8 | 1.5 | 0 | 0 | 0.9 | 94 | 100 | 100 | 100 |
| **Page 1 Evaluation**  **Results Average** | | **0.72** | **1.51** | **0** | **0** | **0.82** | **94.67** | **100** | **100** | **100** |
| 2 | 20/07/2025 03:49:55 | 0.9 | 1.7 | 70 | 0.003 | 1.2 | 91 | 100 | 100 | 100 |
| 2 | 20/07/2025 17:12:26 | 0.6 | 1.4 | 70 | 0.003 | 0.8 | 95 | 100 | 100 | 100 |
| 2 | 21/07/2025  12:58:07 | 0.7 | 1.9 | 70 | 0.003 | 0.9 | 91 | 100 | 100 | 100 |
| 2 | 21/07/2025  04:29:30 | 0.7 | 1.1 | 0 | 0.003 | 0.8 | 98 | 100 | 100 | 100 |
| 2 | 21/07/2025  17:15:34 | 1.0 | 1.8 | 30 | 0.003 | 1.0 | 91 | 100 | 100 | 100 |
| 2 | 22/07/2025  19:36:51 | 0.7 | 1.9 | 60 | 0.003 | 0.9 | 96 | 100 | 100 | 100 |
| **Page 2 Evaluation Results Average** | | **0.77** | **1.63** | **50** | **0.003** | **0.93** | **93.67** | **100** | **100** | **100** |
| 3 | 20/07/2025 04:01:15 | 0.7 | 0.7 | 20 | 0.507 | 0.8 | 78 | 96 | 96 | 100 |
| 3 | 20/07/2025 17:25:08 | 0.6 | 0.7 | 10 | 0.589 | 0.8 | 77 | 96 | 96 | 100 |
| 3 | 21/07/2025  01:15:37 | 0.7 | 0.8 | 20 | 0.372 | 0.8 | 81 | 96 | 96 | 100 |
| 3 | 21/07/2025  04:38:32 | 0.6 | 0.7 | 0 | 0.589 | 0.7 | 77 | 96 | 96 | 100 |
| 3 | 21/07/2025  17:25:09 | 0.7 | 0.8 | 0 | 0.589 | 0.8 | 77 | 96 | 96 | 100 |
| 3 | 22/07/2025  19:47:58 | 0.9 | 0.9 | 50 | 0.507 | 0.9 | 77 | 96 | 96 | 100 |
| **Page 3 Evaluation Results Average** | | **0.7** | **0.77** | **16.7** | **0.526** | **0.8** | **77.83** | **96** | **96** | **100** |