| | |
|---|---|
| **Project:** | **MARIE Binary Search**: Implement a binary search program using the MARIE architecture of our text. If the input value is found, the address of the value is placed in the output. If the input value is not in the list, a hexadecimal value of 2BAD is placed in the output. The list of values to search is given below. -47, -43, -41, -37, -31, -29, -23, -19, -17, -13, -11, -7, -5, -3, -2, -1,1, 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47. Prompt the user to input the search key. |
| **Deliverables:** | Your deliverable is a document. If you are submitting this project with a partner, the document is named CRN-*author1*-*author2*-**p02.docx**. For example, if the team consisting of Ms. Fiona **Faultless** and Ms. Petunia **Perfect,** enrolled in section CRN **11404**, submits project p02, the file name of their document would be **11404-Faultless-Perfect-p02.docx**. The team must attach their document to the note sent to your instructor.<br><br>If you are submitting this project as an individual contributor, the document is named CRN-*lastname*-*firstname*-**p02.docx**. For example, if you are Ms. Fiona **Faultless,** enrolled in section CRN **11404**, submitting project p02, the file name of their document would be **11404-Faultless-Fiona-p02.docx**. You must attach the document to the note sent to your instructor.<br><br>Your document must include the following two items. |
| **1.** | File **M-BS.mas**. This file, when assembled, executes a binary search on the MARIE simulator.<br>Your file M-BS.mas must have an author identification comment that is similar to:<br>/Author1: Mr. Charles Babbage<br>/Student ID: *00000000<br>/E-Mail: cbabbage@uco.edu<br>/Author2: Ms. Ada Lovelace<br>/Student ID: *00000001<br>/E-Mail: elovelace@uco.edu<br>/Course: CMSC 3833 – Computer Organization II<br>/CRN: 10931, Autumn, 2019<br>/Project: p01<br>/Due: September 16, 2019<br>/File: M-BS.mas<br><br>When copied to your submission document, your MARIE Binary Search program must be single spaced. A double-spaced copy of your MARIE assembly program is prohibited. |
| **2.** | File **M-BS.lst**. This file is produced when file **M-BS.mas** is assembled. |
| **Submission Template** | Partners employ the submission template p02 Project Template docx for students with a partner.<br>http://cs2.uco.edu/~trt/cs2833/p02ProjectTemplate%202.docx<br><br>Students without a partner employ the submission template p02 Project Template docx for students without a partner.<br>http://cs2.uco.edu/~trt/cs2833/p02ProjectTemplate%201.docx |

| | |
|---|---|
| **Electronic Submission:** | You and your partner make a single submission. Attach your document specifying the Instruction Set Architecture that you designed to a note to me trturner@uco.edu. |

| **Scoring Block** | | | |
|---|---|---|---|
| **Section** | **Available** | **Earned** | **Explanation** |
| Assembly[1] | | | |
| Submission Instructions | 4 | 4 | |
| Author Identification | 2 | 2 | |
| Project Instructions | 14 | 14 | |
| Execution | 30 | 30 | |
| **Total** | **50** | **50** | |

[1] Please note that any project whose source fails to assemble without error is assigned a score of **zero (0)**.