CSU22022 Computer Architecture I

Prof. Michael Manzke

Assignment: Milestone Function Unit

# Checklist

14th October 2024

Version 1.0

**All files must be submitted to Blackboard as individual files, no zipfiles. With one exception: the “Processor\_XXXXXXXX.srcs” must be a zip‐file. Submit only entities that are working and are fully tested. You must follow the entity order on the checklist. You cannot skip entities.**

**The entities must be programmed and tested in the following order. Please confirm by ticking all the boxes, next to the items, that all required files are available on Blackboard and that the entity is fully working. You must print this checklist, tick the boxes, sign it, and submit it with your milestone assignment to Blackboard.**

**All files must be submitted in the checklist order:**

DP\_FullAdder\_XXXXXXXX.vhd

DP\_FullAdder\_XXXXXXXX\_TB.vhd

DP\_FullAdder\_XXXXXXXX\_SchematicXX.pdf

DP\_FullAdder\_XXXXXXXX\_TDXX.png

DP\_FullAdder\_XXXXXXXX\_Doc. txt (can be any file format)

DP\_RippleCarryAdder32Bit\_XXXXXXXX.vhd

DP\_RippleCarryAdder32Bit\_XXXXXXXX\_TB.vhd

DP\_RippleCarryAdder32Bit\_XXXXXXXX\_SchematicXX.pdf

DP\_RippleCarryAdder32Bit\_XXXXXXXX\_TDXX.png

DP\_RippleCarryAdder32Bit\_XXXXXXXX\_Doc.txt (can be any file format)

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| 00 | My submission complies with the  “Instructions for the Blackboard Submission of the Assignment”  (CSU22022 Milestone Function Unit  2024‐2025 Instruction V1.0.pdf) | Yes |
| 01 | DP\_FullAdder\_XXXXXXXX.vhd | Yes |
| DP\_FullAdder\_XXXXXXXX \_TB.vhd | Yes |
| DP\_FullAdder\_XXXXXXXX \_SchematicXX.pdf | Yes |
| DP\_FullAdder\_XXXXXXXX \_TDXX.png | Yes |
| DP\_FullAdder\_XXXXXXXX \_Doc.txt (can be any file format) | Yes |
| Is working | Yes |

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| 02 | DP\_RippleCarryAdder32Bit\_XXXXXXXX.vhd | Yes |
| DP\_RippleCarryAdder32Bit\_XXXXXXXX\_TB.vhd | Yes |
| DP\_RippleCarryAdder32Bit\_XXXXXXXX\_SchematicXX.pdf | Yes |
| DP\_RippleCarryAdder32Bit\_XXXXXXXX\_TDXX.png | Yes |
| DP\_RippleCarryAdder32Bit\_XXXXXXXX\_Doc.txt (can be any file format) | Yes |
| Is working | Yes |

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| 03 | DP\_SingleBit\_B\_Logic\_XXXXXXXX.vhd | Yes |
| DP\_SingleBit\_B\_Logic\_XXXXXXXX\_TB.vhd | Yes |
| DP\_SingleBit\_B\_Logic\_XXXXXXXX\_SchematicXX.pdf | Yes |
| DP\_SingleBit\_B\_Logic\_XXXXXXXX\_TDXX.png | Yes |
| DP\_SingleBit\_B\_Logic\_XXXXXXXX\_Doc.txt (can be any file format) | Yes |
| Is working | Yes |

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| 04 | DP\_32Bit\_B\_Logic\_XXXXXXXX.vhd | Yes |
| DP\_32Bit\_B\_Logic\_XXXXXXXX\_TB.vhd | Yes |
| DP\_32Bit\_B\_Logic\_XXXXXXXX\_SchematicXX.pdf | Yes |
| DP\_32Bit\_B\_Logic\_XXXXXXXX\_TDXX.png | Yes |
| DP\_32Bit\_B\_Logic\_XXXXXXXX\_Doc.txt (can be any file format) | Yes |
| Is working | Yes |

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| 05 | DP\_SingleBit\_LogicCircuit\_XXXXXXXX.vhd | Yes |
| DP\_SingleBit\_LogicCircuit\_XXXXXXXX\_TB.vhd | Yes |
| DP\_SingleBit\_LogicCircuit\_XXXXXXXX\_SchematicXX.pdf | Yes |
| DP\_SingleBit\_LogicCircuit\_XXXXXXX \_TDXX.png | Yes |
| DP\_SingleBit\_LogicCircuit\_XXXXXXXX\_Doc.txt (can be any file format) | Yes |
| Is working | Yes |

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| 06 | DP\_32Bit\_LogicCircuit\_XXXXXXXX.vhd | Yes |
| DP\_32Bit\_LogicCircuit \_XXXXXXXX\_TB.vhd | Yes |
| DP\_32Bit\_LogicCircuit \_XXXXXXXX\_SchematicXX.pdf | Yes |
| DP\_32Bit\_LogicCircuit \_XXXXXXXX\_TDXX.png | Yes |
| DP\_32Bit\_LogicCircuit \_XXXXXXXX\_Doc.txt (can be any file format) | Yes |
| Is working | Yes |

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| 07 | CPU\_Mux2\_32Bit \_XXXXXXXX.vhd | Yes |
| CPU\_Mux2\_32Bit \_XXXXXXXX\_TB.vhd | Yes |
| CPU\_Mux2\_32Bit \_XXXXXXXX\_SchematicXX.pdf | Yes |
| CPU\_Mux2\_32Bit \_XXXXXXXX\_TDXX.png | Yes |
| CPU\_Mux2\_32Bit \_XXXXXXXX\_Doc.txt (can be any file format) | Yes |
| Is working | Yes |

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| 08 | DP\_ArithmeticLogicUnit \_XXXXXXXX.vhd | Yes |
| DP\_ArithmeticLogicUnit \_XXXXXXXX\_TB.vhd | Yes |
| DP\_ArithmeticLogicUnit \_XXXXXXXX\_SchematicXX.pdf | Yes |
| DP\_ArithmeticLogicUnit \_XXXXXXXX\_TDXX.png | Yes |
| DP\_ArithmeticLogicUnit \_XXXXXXXX\_Doc.txt (can be any file format) | Yes |
| Is working | Yes |

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| 09 | DP\_Mux3\_1Bit\_XXXXXXXX.vhd | Yes |
| DP\_Mux3\_1Bit\_XXXXXXXX\_TB.vhd | Yes |
| DP\_Mux3\_1Bit\_XXXXXXXX\_SchematicXX.pdf | Yes |
| DP\_Mux3\_1Bit\_XXXXXXXX\_TDXX.png | Yes |
| DP\_Mux3\_1Bit\_XXXXXXXX\_Doc.txt (can be any file format) | Yes |
| Is working | Yes |

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| 10 | DP\_ShifterCFlagMux2\_1Bit\_XXXXXXXX.vhd | Yes |
| DP\_ShifterCFlagMux2\_1Bit\_XXXXXXXX \_TB.vhd | Yes |
| DP\_ShifterCFlagMux2\_1Bit\_XXXXXXXX \_SchematicXX. pdf | Yes |
| DP\_ShifterCFlagMux2\_1Bit \_XXXXXXXX \_TDXX.png | Yes |
| DP\_ShifterCFlagMux2\_1Bit \_XXXXXXXX \_Doc.txt (can be any file format) | Yes |
| Is working | Yes |

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| 11 | DP\_Shifter\_XXXXXXXX.vhd | Yes |
| DP\_Shifter\_XXXXXXXX \_TB.vhd | Yes |
| DP\_Shifter\_XXXXXXXX \_SchematicXX. pdf | Yes |
| DP\_Shifter\_XXXXXXXX \_TDXX.png | Yes |
| DP\_Shifter\_XXXXXXXX \_Doc.txt (can be any file format) | Yes |
| Is working | Yes |

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| 12 | DP\_CFlagMux2\_1Bit\_XXXXXXXX.vhd | Yes |
| DP\_CFlagMux2\_1Bit\_XXXXXXXX \_TB.vhd | Yes |
| DP\_CFlagMux2\_1Bit\_XXXXXXXX \_SchematicXX. pdf | Yes |
| DP\_CFlagMux2\_1Bit\_XXXXXXXX \_TDXX.png | Yes |
| DP\_CFlagMux2\_1Bit\_XXXXXXXX \_Doc.txt (can be any file format) | Yes |
| Is working | Yes |

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| 13 | DP\_ZeroDetection\_XXXXXXXX.vhd | Yes |
| DP\_ZeroDetection\_XXXXXXXX \_TB.vhd | Yes |
| DP\_ZeroDetection\_XXXXXXXX \_SchematicXX.pdf | Yes |
| DP\_ZeroDetection\_XXXXXXXX \_TDXX.png | Yes |
| DP\_ZeroDetection\_XXXXXXXX \_Doc.txt (can be any file format) | Yes |
| Is working | Yes |

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| 14 | DP\_FunctionalUnit\_XXXXXXXX.vhd | Yes |
| DP\_FunctionalUnit\_XXXXXXXX \_TB.vhd | Yes |
| DP\_FunctionalUnit\_XXXXXXXX \_SchematicXX.pdf | Yes |
| DP\_FunctionalUnit\_XXXXXXXX \_TDXX.png | Yes |
| DP\_FunctionalUnit\_XXXXXXXX \_Doc.txt (can be any file format) | Yes |
| Is working | Yes |

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| 15 | Processor\_XXXXXXXX.srcs (including all subdirectories and files) | Yes |
| Processor\_XXXXXXXX.xpr | Yes |
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Student Name: Kyara McWilliam

Student ID: 23375183



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