**Computer Organization**

**Architecture diagram:**

**Detailed description of the implementation:**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Instr** | **RW** | **B** | **J** | **WB0** | **WB1** | **MR** | **MW** | **SrcA** | **SrcB** | **Op** | **opcode** |
| **R-type** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **X** | **0** | **10** | **0110011** |
| **Addi** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **X** | **1** | **11** | **0010011** |
| **Load** | **1** | **0** | **0** | **1** | **0** | **1** | **0** | **X** | **1** | **00** | **0000011** |
| **Store** | **0** | **0** | **0** | **X** | **X** | **0** | **1** | **X** | **1** | **00** | **0100011** |
| **Branch** | **0** | **1** | **0** | **X** | **X** | **0** | **0** | **0** | **0** | **01** | **1100011** |
| **JAL** | **1** | **X** | **1** | **X** | **1** | **X** | **0** | **0** | **X** | **XX** | **1101111** |
| **JALR** | **1** | **X** | **1** | **X** | **1** | **X** | **0** | **1** | **X** | **XX** | **1100111** |

**Implementation results:**

**Problems encountered and solutions:**

**Comment:**