**EE275: Mini-Project 2**

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**MIPS ISA Dot Product Simulator**

**(With forward branching and 2-bit branch prediction)**

**Agenda:**

To implement subset of the MIPS ISA that can execute the dot product benchmark with forward chaining and 2-bit branch prediction using Python programming language.

**Code:**

Text

Description automatically generated

Text

Description automatically generated

Graphical user interface, text

Description automatically generated

**Result:**

**Text

Description automatically generated**

**Dot product with forwarding and branch prediction from mini-project 1:**

**Text

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**Conclusion:**

Dot product with forward chaining and branch prediction has been simulated and observations has been noted. By implementing forward branching and branch prediction we have reduced the stalls from 75 to 19 thereby increasing the CPU performance.