This review is based on "Deep Blue by the IBM Watson Team" paper.

The paper shows a number of techniques used by Deep Blue to beat the best chess players in the world.

The deep blue's architecture has a massive hardware and software combination of parallel processing divided in 3 layers:

1. A master SP Processor searches the top level game tree and distributes processing to
2. Workers SP Processors that carry out few levels of additional search and distributes to
3. Chess Chips (hardware component) which search the last few levels of the tree

In this architecture, Deep Blue could sustain a maximum 330 million position evaluations per second.
The paper states that Deep Blue uses techniques like:

- Quiescence Search
- Iterative Deepening (used on Isolation Game project)
- Transposition Tables
- NegaScout

After several matches with world champions, IBM noted that human players could search deeper than Deep Blue.

For performance reasons the following parts were implemented by hardware:

- **Move generator** gets valid board moves ordered to a efficient search (e.g: lowed-value pieces capturing high-valued pieces)
- **Evaluation function**
    - **Fast evaluation** to skip full evaluation when an approximation is enough
    - **Slow evaluation** for computing values based on standard chess concepts like "king safety"
- **Search control** that implement alpha-beta search (used in Isolation Game project)

After being beaten by Kasparov in 1996, IBM developed a new software search which was called "dual credit with delayed extensions".

Considering 90's computing power, IBM scientists have done a good job. The architecture seems to fit into cloud architecture for massive parallelism.