

The Oracle of Bacon

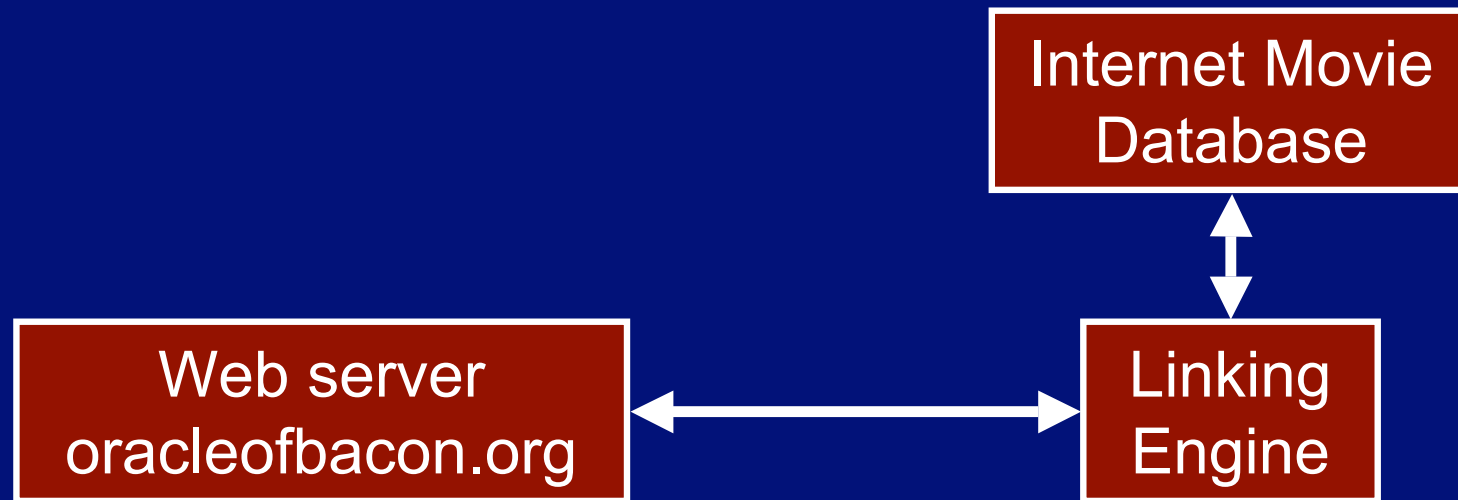
Six Degrees of Kevin Bacon

- Link people to Kevin Bacon based on movies they have been in together
 - Morgan Freeman was in Se7en with Brad Pitt
 - Brad Pitt was in Sleepers with Kevin Bacon
- Morgan Freeman has a Bacon number of 2
- Who has a Bacon number of 4 or more?

Centers of the Hollywood Universe

- 739,979 people can be connected to Bacon
- Is he the center of the Hollywood Universe?
 - No!
 - Who is?
 - Who are other good centers?
 - What makes them good centers?

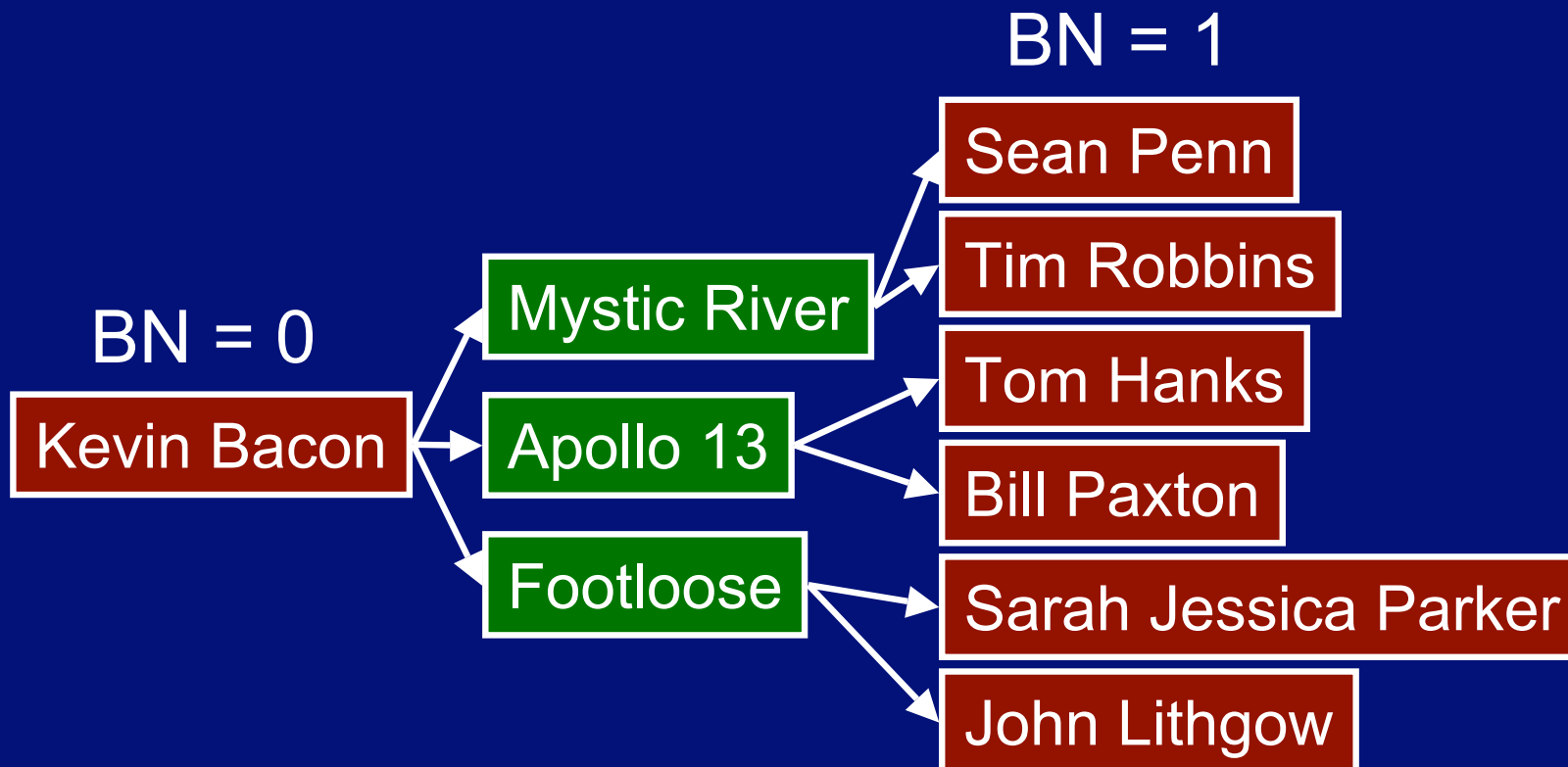
The Oracle of Bacon



- **Linking Engine:**
 - Is written in C
 - Stores all movie data in memory
 - Answers link, number, and center queries
 - Doesn't actually use Oracle™

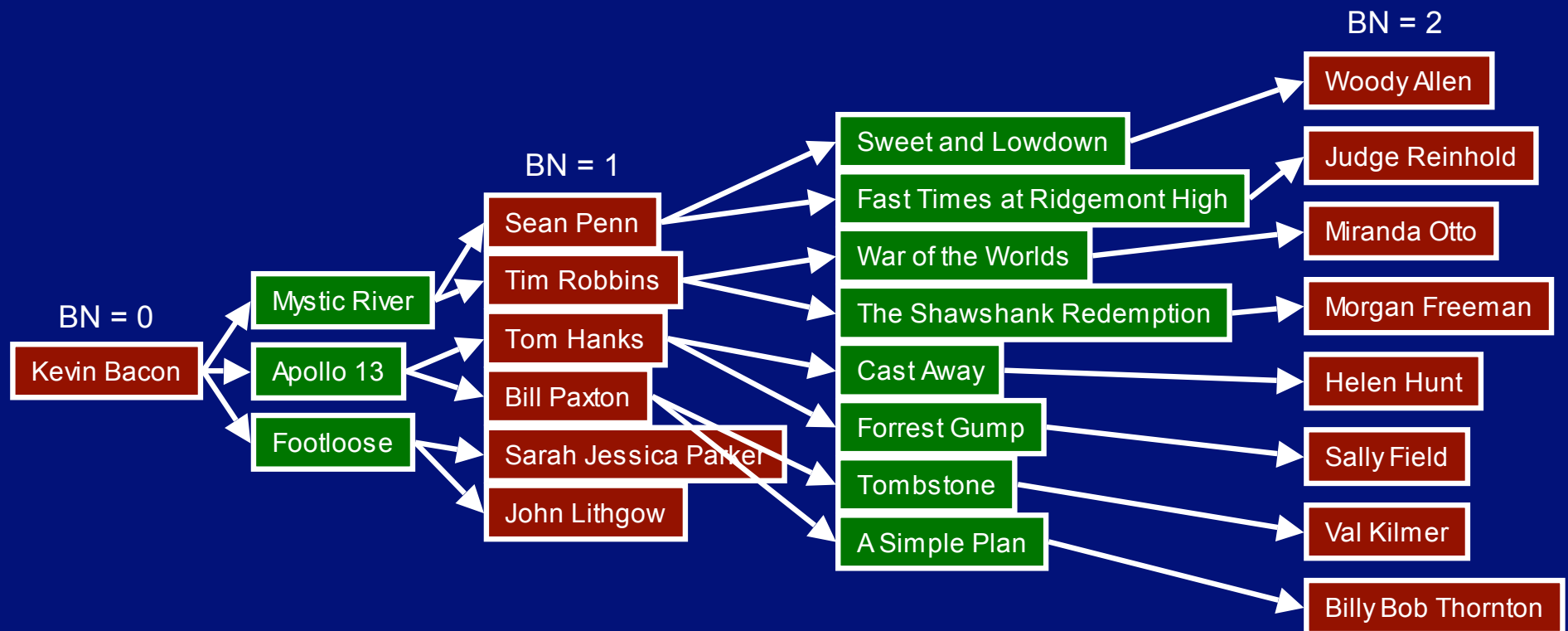
Inside the Linking Engine

- All three types of queries use breadth-first search



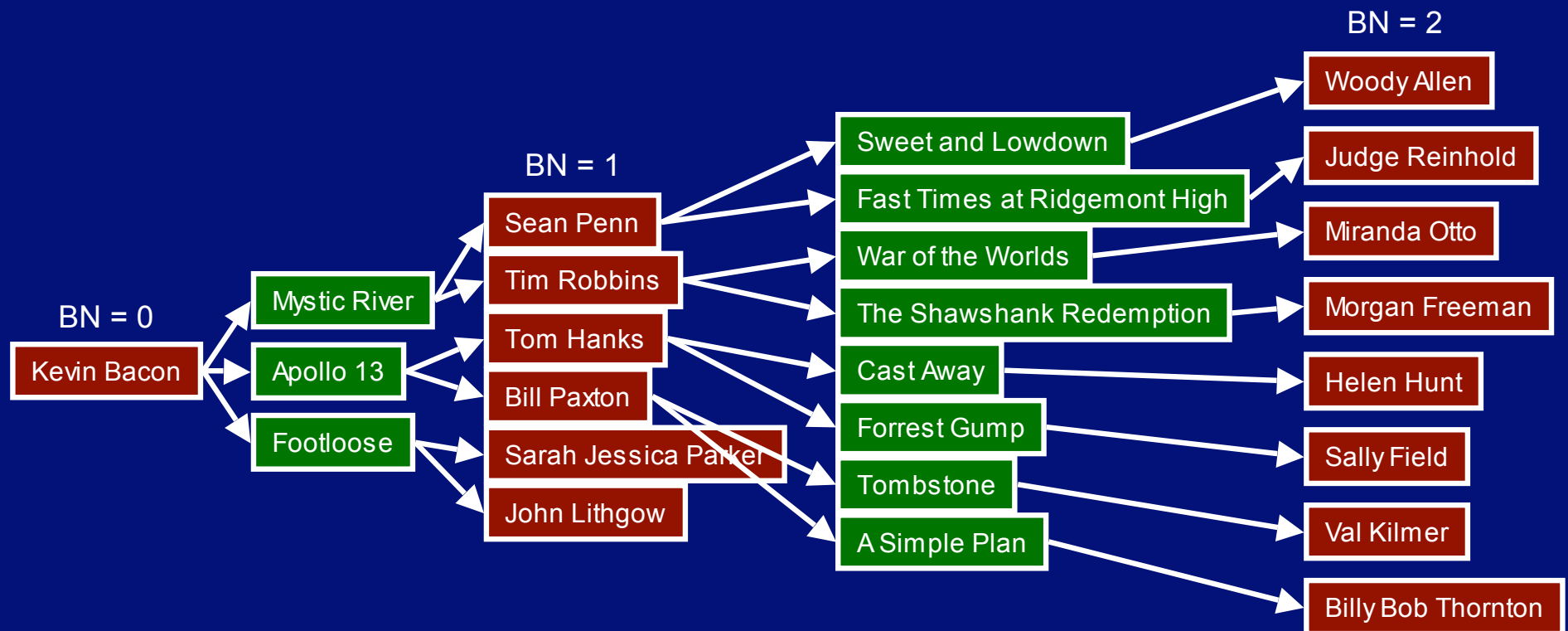
Inside the Linking Engine

- All three types of queries use breadth-first search



Inside the Linking Engine

- Link Val Kilmer to Kevin Bacon



Inside the Linking Engine

- How good a center is Kevin Bacon?
 - Average everyone's Bacon number
 - Currently 2.963, ranked 1222nd
- Who is exactly 2 hops away from Kevin Bacon?
 - This whole column
 - Currently 163,002 people



Spel Cheking

- Oracle of Bacon users can't spell
 - Dan Ackroyd → Dan Aykroyd
 - Mike Meyers → Mike Myers
 - Sally Fields → Sally Field
- Show everyone with an edit distance of 3 or fewer

Jake ~~xx~~llenha~~x~~l
Gy a

A little bit of history

- Craig Fass, Mike Ginelli, and Brian Turtle invented it as a drinking game at Albright College
- Brett Tjaden and Glenn Wasson put it on the web at UVA in 1995
- I have run it since 1999
 - Full rewrite, with caching and spell check
- Oracles of Baseball, TV stars, and corporate executives

Emails I get

- Journalists
- Actors and actress (and one porn star)
- “Help me write an Oracle of such-and-such”
- “Why isn’t so-and-so in your database?”
 - = “I can’t spell”
 - = “I don’t know the difference between actors and characters (and animals and muppets)”
- “Why do you link through documentaries?”
- “Please tell me who has a Bacon number of 8”