# Directions

* Complete the following steps.
* Submit the Tree diagram and answers to D2L.

# B-Tree

* **Draw** a B-Tree diagram using the following data.
* Each node can have one name
* Recall that the data must be sorted before being built

Burney, Erina

Franklin, Donisha

Sheffield, Latasha

Shutz, Melissa

Snipes, Toya

Thoms, Tara

Wells, Eric

Griffin, Diane

McKee, Jamie

Ormesher, Mike

Swiklinski, Jackie

Waffensmith, Steve

Yagatich, Georgeanne

Bartleson, Kerri

Helfmann, Toni

Zemba, Jodi

John, Darrell

Mitchell, William

Betters, Justin

Brown, Lynn

Carwell, Damon

Ciccone, Jen

Petrunia, Dan

Reed, Ron

Schaeffer, Steven

Shelton, Robin

Wysocki, John

Yogman, Dan

Lubich, Chris

Yocum, Charles

Tsai, Chia Yu

Bruni, Anthony

Homa, Ray

Rodriguez, Andy

# Questions

1. How many leaf nodes are processed to find Jodi Zemba?

6

2. If this file were stored in alphabetical order in a text file, using brute force linear search, how many lines would it search to find Jodi Zemba?

34

3. Based on this data, why is a B-Tree a more efficient search than a linear search?

You do not have to go through every line to find Zemba which could take a lot of time depending on the size of the data.