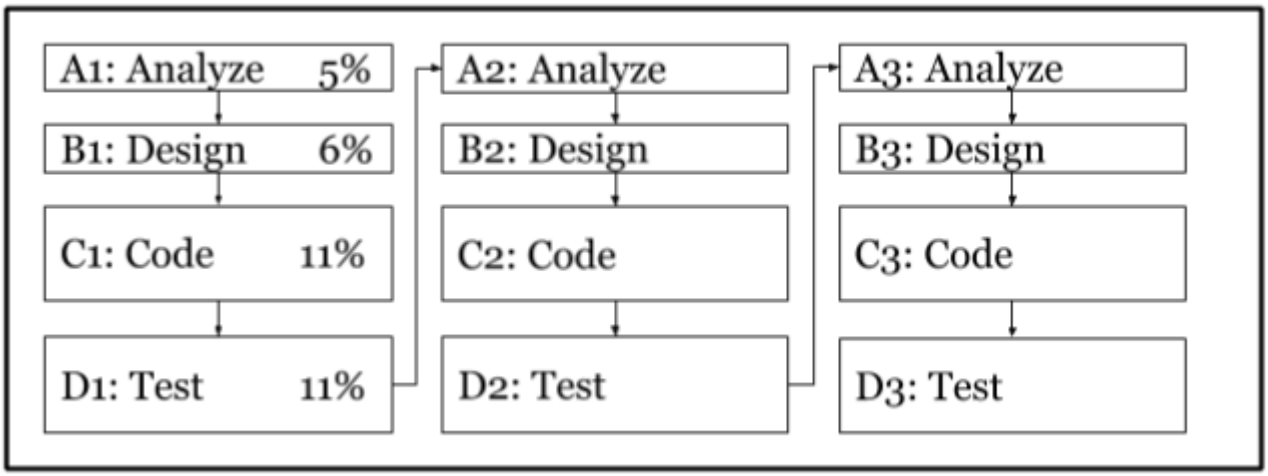
Model 1 The Iterative Model



Assume that the total cost & effort is the same for **??** and Model 1. They differ only in how the SDLC is organized.

Questions (15 min) **Start time:** _____

1. Based on the Iterative Model:

a) How many stages are there? 12

b) Which stage is 7th? C2: Code

c) Which stages involve design? B1, B2, B3

d) What % of total effort is for the **first four stages**? 33% A1+B1+C1+D1

e) What % of total effort is for **testing**? 33% D1+D2+D3

f) What % of total effort is for **analysis and design**? 33% A1+A2+A3 + B1+B2+B3

2. Based on the Iterative Model:

a) During what stage is the project 25% completed? D1

b) When the project is 25% completed, what % of **analysis** is done? 33% A1 only

c) When the project is 25% completed, what % of **coding** is done? 33% C1 only

d) When the project is 25% completed, what % of **testing** is done? About 9% (3%/33%)

e) During what stage is the project 50% completed? C2

f) When the project is 50% completed, what % of **analysis** is done? 67% A1 and A2

g) When the project is 50% completed, what % of **coding** is done? About 52% (17%/33%)

h) When the project is 50% completed, what % of **testing** is done? About 33% (11%/33%)

3. It is important to find and fix errors in software.

a) If **analysis** errors are found during **A1: Analyze**,
in which stage could they be fixed? A1: Analyze

b) If **analysis** errors are found during **B1: Design**,
in which stage could they be fixed? A2: Analyze

c) If **coding** errors are found during **D2: Test**,
in which stage could they be fixed? C3: Code

d) If **analysis** errors are found during **B2: Design**,
in which stage could they be fixed? A3: Analyze

e) Are **analysis** errors likely to cause **design** errors? Yes

f) Are **design** errors likely to cause **coding** errors? Yes

g) Is it better to have **one try** or **several tries**
to remove all errors from the project? several tries

4. Explain why each test stage should try to find as many errors as possible.

The sooner you find a defect, (1) the easier it is to fix, and (2) the few other defects it causes.

5. Explain why **Iterative** is less likely then **Waterfall** to run into projects later in the project.

Iterative finds and fixes problems sooner, rather than waiting until the end of the life cycle.

NOTE: The iterative model does not necessarily repeat exactly three times. The key idea is that it repeats each stage multiple times, for the reasons you have identified.