NPTEL NPTEL ONLINE COURSE Discrete Mathematics Logic Primitive and Compound statements - Part 1 Prof. S.R.S Iyengar Department of Computer Science IIT Ropar

Look at this long statement. New Delhi is the capital of India. Paris is the capital of France. Beijing is the capital of China. They say Berlin the capital of Germany. It's a long sentence, right. Is this a statement? Of course yes. When will this statement be true and when will this statement be false? This is true if all the individual facts that I told you is true. This entire statement, big statement is false if even one of these facts are incorrect. Something to note, this big sentence that I said that you see here is called a compound statement because you see it has a lot of facts. Each fact is actually a statement right. Such statements are called compound statements and statements such as these whatever you see New Delhi is the capital of India, Berlin is the capital of Germany and so on individually are called primitive statements. Why primitive? You cannot further break them down. While the big compound statement you could break them down on to primitive statements. So all you need to know is what is a primitive statement and what is a compound statement.

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