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2 limited to simple elements such as 1d bars we will learn energy method to build beam finite element structure is in equilibrium when the potential energy is minimum  
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behind the scenes the software employs a numerical technique called finite element analysis or fea the concepts behind fea were developed in the early 1940 s but the method became more mainstream in the 1980 s and 90 s when it was implemented on desktop computers today fea is a powerful tool that is widely used by designers

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or create geometry preprocess to geometry solve the  
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