The purpose of this thesis is to give a summary of historical development and explain fundamentals of the probability theory. Early systematic thoughts, emergence of classical Laplace, geometric and statistical definition of probability with development of theory, independence, conditional probability and Bayes theorem are shown. The thesis describes first mentions of random values and the central limit theorem. The alternative, discrete uniform, binomial, Poisson, continuous uniform, normal and exponential distributions are discussed with historical background of their discoveries. The theory is supplemented with illustrative and contemporary examples. The thesis describes development in various fields of probability until publication of the Kolmogorov's probability theory in 1933.