The main objective of this work is to formalize the concept of conformal prediction. This robust, nonparametric method allows the construction of an accurate prediction interval at a specified level, for which it is sufficient to assume that the input data are independent, equally distributed. In the context of random sampling from a one-dimensional continuous distribution, we expose the theoretical foundations of the method. Subsequently, we define the key concept of the degree of nonconformance and present the algorithmic design, first for random sampling and then in the context of regression analysis. At the end of the work, we compare the reliability and effectiveness of conformal prediction with a specific frequency method on randomly generated data.