In this thesis we first introduce Borel hierarchy of sets in metric spaces and prove some of its properties. Then for special Borel subsets of special metric spaces (Euclidean space of real numbers and the hyperspace of compact subsets of a Polish space with Vietoris topology) we find out where they are in Borel hierarchy, i. e. we find out the class of Borel hierarchy, in which they are, and such that they are in no smaller class with respect to inclusion, which can be understood as an expression of its complexity. Finally we give an example of a coanalytic subset of the hyperspace of compact subsets of a Polish space, which is not Borel, with the proof of its coanalyticity.