In this paper we deal with paired categorical data. We will test marginal homogeneity and symmetry of corresponding probability table. At first, we describe multinomial distribution and contingency tables. In the next section, we deal with dichotomic paired categorical data, we derive McNemar's test and describe test for small sample sizes. Further, we state tests for general paired categorical data, Stuart's and Bhapkar's test are described. We then state test derived by Bowker, which is used for testing symmetry of probability table. In the last section, we show simulations of McNemar's test in software R.