User research includes the following aspects.

User research is comprised of many different elements. These include competitive analysis, product reviews, user interviews, empathy mapping, and persona creation. According to <u>UtilityGeek.com</u> competitive analysis can "can help you know your market, product and goals better." In an industry that has many different options, being able to understand you competition and come up with different insights can only add to your success. It also allows you to solve usability problems, helps you understand where you product stand in the market, and allows you to understand the strengths and weaknesses of your competition. A UX competitor analysis is made up of different research methods. UtilityGeek breaks this down into two phases. Phase one is knowing what research to look for as well as how to research. Phase two is processing and analyzing that information before acting on it. Another way user research is done is through user interviews. This method is cheap and easy but allows you to gain information from the users themselves.

InteractionDesign.org defines a user interview as a researcher who "asks questions of, and records responses from, users. They can be used to examine the user experience, the usability of the product or to flesh out demographic or ethnographic data (for input into user personas) among many other things." Ideally, you want to have two UX researchers for every user. One person asks the questions and helps to guide the interview while the other takes notes. Topics that can be discussed include background information, how skilled they are with technology, use of the product, the customers objectives and motivations, and the users pain points. Even though interviews can offer a lot they also come with their fair share of problems. To begin, humans don't have a perfect memory! Some details may be forgotten or inaccurate. Secondly, interviews may only capture what people say they will do rather than what they will do if they were in the situation. Lastly, it is important to remember that users are not designers. Therefore, one cannot expect them to create solutions or come up with new ideas for the product or company.

It is a UX professional's job to advocate for the user. However, that can only be done if we deeply understand the users and are able to identify what their needs are. One way this can be done is through empathy mapping. <u>nngroup.com</u> defines empathy mapping as "a collaborative visualization used to articulate what we know about a particular type of user. It externalizes knowledge about users in order to 1) create a shared understanding of user needs, and 2) aid in decision making." Empathy maps can be done in several different ways. For the traditional type, four quadrants are created which represent says, thinks, does, and feels. The user persona is placed in the middle of the four. An example for each quadrant are says I want something affordable, thinks this is hard to navigate, does ask a lot of questions, and feels frustrated because they are not able to get to where they want to go. In addition to the single user format, an aggregated empathy map can also be created. This type is used to represent a user segment rather than one particular person. In order to create an aggregated empathy map multiple individual empathy maps from users who exhibits similar behaviors. They are grouped together as one segment This type of empathy map can also help summarize other forms of data like surveys or field studies.