***Assignment 3***

**Sagar Kulkarni**

**20767929**

1. **20 most similar words to “good”**

* [(**'great'**, 0.7829448580741882), (**'decent'**, 0.6987178921699524),
* (**'nice'**, 0.6376584768295288), ('**excellent**', 0.5907641053199768),
* ('**fantastic**', 0.5842849016189575), ('**wonderful**', 0.554689884185791),
* ('**bad**', 0.5214293003082275), ('**amazing**', 0.5213870406150818),
* ('**terrific**', 0.5204004645347595), ('**awesome**', 0.5051551461219788),
* ('**reasonable**', 0.4918113350868225), ('**superb**', 0.4853777289390564),
* ('**exceptional**', 0.47319862246513367), ('**outstanding**', 0.4642523527145386),
* ('**impressive**', 0.4554325044155121), ('**well**', 0.45432034134864807),
* ('**poor**', 0.4492253363132477), ('**unbeatable**', 0.436453640460968),
* ('**perfect**', 0.43331408500671387), ('**better**', 0.4315548837184906)]

1. **20 most similar words to “bad”**

* [('**horrible**', 0.5797914266586304), ('**terrible**', 0.556745171546936),
* ('**awful**', 0.5468744039535522), ('**good**', 0.5214292407035828),
* ('**poor**', 0.4650515615940094), ('**funny**', 0.4454365670681),
* ('**horrid**', 0.4306045174598694), ('**shabby**', 0.41827067732810974),
* ('**strange**', 0.4168245792388916), ('**meh**', 0.4164409935474396),
* ('**scary**', 0.4041624367237091), ('**weird**', 0.39869463443756104),
* ('**horrific**', 0.39279335737228394), ('**nasty**', 0.38719019293785095),
* ('**disappointing**', 0.38652992248535156), ('**unfortunate**', 0.385179340839386),
* ('**positive**', 0.3771277070045471), ('**hideous**', 0.3734428286552429),
* ('**vile**', 0.37323620915412903), ('**rave**', 0.372262567281723)]

**Q. Are the words most similar to “good” positive and words most similar to “bad” negative? Why this is or isn’t the case? Explain your intuition.**

**Answer:** Most of the words that are similar to “good” are indeed positive and most of the words similar to “bad” are negative. This is the case because its possible that either the similar words are those that come together very often or that these words can be used interchangeably in the same context. Ex: “good experience” and “great experience”, the word “good” can be interchanged with “great” in the context of explaining “experience”. Ex: “good food” and “bad food” , both these sentences make sense contextually however they are opposite words but still have high similarity as, again, they are both common words used explain the context “food” .