Khrystian Clark

Week 5 – Random Testing

For this document, you will need to fill out the information below. Ensure you have 5 triggering numbers for each bug or you will receive zero points for the bug. Your theory must fit the 5 provided numbers to receive any points. To receive full points, your theory must match the actual coded error, so you may need more than 5 data points for each bug to successfully determine the causes.

- **Bug 1**
  - **Triggering credit card numbers (at least 5)**
    - …
    - …
    - …
    - …
    - …
  - **Theory that explains what triggered the bug**
    - Place theory here
- **Bug 2**
  - **Triggering credit card numbers (at least 5)**
    - 4444093637586620
    - 4444628292992181
    - 4444642761066179
    - 4444575777939304
    - 4444884302137511
  - **Theory that explains what triggered the bug**
    - This bug is caused by credit card numbers that begin with "4444" which seems to be causing an edge case exposure of values that start with that prefix.
- **Bug 3**
  - **Triggering credit card numbers (at least 5)**
    - 4870258541192137
    - 4606929947083457
    - 4939592862126467
    - 4440386014790995
    - 4463185170469721
    - 4115174798338601
    - 4514937386114395
    - 4244024852467057
    - 4033865588847565
  - **Theory that explains what triggered the bug**
    - This bug is caused by numbers that begin with "4" and with a greatest common factor of 151, otherwise they all meet requirements to be valid visa numbers.
- **Bug 4**
  - **Triggering credit card numbers (at least 5)**
    - 4171691129014171

- 4231807433254231
- 2624900200482624
- 2669304179742669
- 2589872766342589
- 4304768595664304
- 2312739773552312
- o **Theory that explains what triggered the bug**
  - This bug is caused buy numbers that do not pass luhn's algorithm, and if they do, the length and prefix criteria do not match.
- **Bug 5**
  - o **Triggering credit card numbers (at least 5)**
    - 2676123439372276
    - 4333568412349538
    - 377453123416725
    - 344812340233553
    - 4805035030961234
    - 2357850123422548
  - o **Theory that explains what triggered the bug**
    - This bug is triggered by numbers that do not have the correct prefix or length for the given prefix, or do not have the correct length and prefix, but all have valid check bits.
- **Bug 6**
  - o **Triggering credit card numbers (at least 5)**
    - 4862403575720672
    - 2596047263499672
    - 4737760201187672
    - 343834165989672
    - 346053399122672
    - 376980844866672
  - o **Theory that explains what triggered the bug**
    - This bug is trigger by number ending in "672" but have valid prefix and lengths.
- **Bug 7**
  - o **Triggering credit card numbers (at least 5)**
    - …
    - …
    - …
    - …
    - …
  - o **Theory that explains what triggered the bug**
    - Place theory here
- **Bug 8**
  - o **Triggering credit card numbers (at least 5)**
    - 4967868640690684
    - 4847008840268124

- 4689060507278921
- 4848456266418849
- 4860844143480509
- **Theory that explains what triggered the bug**
  - This bug triggers valid credit card numbers that pass all checks, but contains the prefix "4" followed somewhere throughout the number by two "8"'s, not necessarily directly next to each other.