* Cost, Effort and Pricing Estimation. Describe in detail which method you use to calculate the estimated cost and in turn the price for your project.
  + Please choose one of the two alternative cost modeling techniques and apply that only:
    - **Function Point (FP)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Function Category** | **Cost** | **Complexity** | | | **Count x Complexity** |
| **Simple** | **Average** | **Complex** |  |
| **1** | **Number of user input** | **5** | **3** | **4** | **6** | **20** |
| **2** | **Number of user output** | **4** | **4** | **5** | **7** | **28** |
| **3** | **Number of user queries** | **3** | **3** | **4** | **6** | **9** |
| **4** | **Number of data files and relational tables** | **5** | **7** | **10** | **15** | **50** |
| **5** | **Number of external interfaces** | **2** | **5** | **7** | **10** | **20** |
|  | | | | | **GFP** |  |

* + Q1: 4 Q2: 3 Q3: 2 Q4: 5 Q5: 5 Q6: 5 Q7: 2 Q8: 3 Q9: 3 Q10: 3 Q11: 3 Q12: 1 Q13: 3 Q14: 5
  + GFP = 127
  + PCA = 0.65 + 0.01 (4+ 3 + 2 + 5 + 5 + 5 + 2 + 3 + 3 + 3 + 3 + 1 + 3 + 5) = 1.12
  + FP = 127 x PCA = 127 \* 1.12 = 142.24 FP
  + Productivity: 5 function points per person week b/c not familiar with developing a project of this scope
  + E = FP/ productivity
  + E = 142.24/5 = 28.448 = 29 person-weeks
  + Team size = 10 since our project is a start-up company
  + Project duration = E/team size = 29/10 = 3 weeks
  + Estimated cost of hardware products (such as servers, etc.)
    - Company laptops: $1500 x 10 = $15000
  + Estimated cost of software products (such as licensed software, etc.)
    - Jira: $1600 - https://www.atlassian.com/software/jira/pricing#
    - Google cloud services: (~$5000/month) : [Pricing | Cloud Storage | Google Cloud](https://cloud.google.com/storage/pricing)
    - Google Maps API License – dynamic maps - $1500 a year
      * Source(?): https://mapsplatform.google.com/pricing/
    - Falcon Pro
      * $499.95
      * https://www.crowdstrike.com/solutions/small-business/
  + Estimated cost of personnel (number of people to code the end product, training cost after installation)
    - **Employee engagement:** 
      * **$500 a month sounds good**
    - **10 people** 
      * **$65000 a year for salary**
      * **Training cost:** 
        + According to the Harvard Business Review, on average, employee retraining costs a company about $24,800 per worker [13] (time spent training as well, includes money they would originally get paid)
        + <https://hbr.org/2021/07/make-sure-your-companys-reskilling-efforts-pay-off>