Developer Project
Becca Luner, Xin Wang, Andy Zhang

I. Background Information

TechTown currently lacks a system for effective customer relationship management (CRM), which will serve as a database of and a medium for interaction among potential and current developers. By implementing a CRM, TechTown can ease the process of pairing software developers with local startups through increasing its efficiency and consistency, with the goal of having these developers potentially become Chief Technology Officers (CTOs) for their startup companies.

We wish to establish a foundation on which a CRM can be developed through interviews with relevant TechTown staff and exploratory research into the criteria that startup companies desire in developer candidates. Potential incentives can be provided to encourage participation within this network. We will also incorporate them into TechTown's professional service network (PSN) and provide resources to ensure a smooth partnership between the developer and the startup. The matching process will be based on the characteristics that the developers demonstrate, ranging from programming language mastery to software development experience to relevant training in technology.

II. Expansion of the TechTown PSN's Standard Form

Questions altered were compiled here, and additions specific to the developer project are in green. Potential interview questions are also listed to get an insight as to what personalities applicants have.

Professional Service Network Application -- Individual
Programs of Interest:
-Local, Place-Based Businesses
-Tech Startups
- Sector-Specific Events (i.e., health, hacking, environment, fintech, etc.)
- Developer Project
- I am not sure, but I know that I want to be involved with TechTown.

What do you consider your primary industry?
-Algorithms (Design/Implementation)
-Agriculture / AgTech
-Art
-Architecture + Design
-Artificial Intelligence (AI)
-B2B
-Civic Innovation
-Consumer Services
-Consumer Tech Retail
-Cybersecurity
-Data + Analytics
-Digital Design

-Diversity + Inclusion
-E-Commerce
-Education / EdTech
-Energy
-Entertainment
-Fashion
-Finance
-FinTech
-Food + Beverage
-Funding + Investment
-Gaming
-Government
-Hardware + Electronics (Internet of Things – IoT)
-Health
-Human Resources
-Journalism and/or Professional Writing
-Legal
-Life Sciences
-Logistics
-Marketing + Advertising
-Machine Learning
-Mobile
-Mobile Application Development
-Mobility
-Music
-Public Relations
-Real Estate
-Retail
-Robotics
-Security
-Social Impact
-Software
-SportsTechnology
-Tech Development
-Transportation
-User Experience Design (UX)
-User Interface Design (UI)
-Virtual Reality
-Website Development
-Youth
-Other

*If any of the green reponses chosen:
        Do you prefer frontend or backend development?

        What Languages do you Code in?

-C
-CSS
-C#
-C++
-CPP
-HTML
-Java
-JavaScript
-ObjectiveC
-PHP
-Pearl
-Python
-Ruby
-SQL
-Swift
-XCode
-Other
-Identify which

What language/stack are you currently using?

Background and Technical Skills
Please expand upon your training as a developer. Do you have any formal technological training? Where have you worked in the past? What projects have you completed there?

Link your GitHub/Portfolio and reference any relevant projects (required):

Personality Questions (choose one)
- *Why did you decide to become a developer?*
- *What are you passionate about?*
- *Why do you want to work for an idea stage startup as a developer?*
- *What do you like to do in your free time? Are there any favorite hobbies you would like to share?*
- *Other than performing your technical skills, what is your ideal role in a team?*

Verification for Tech Skills (interview)
During the interview, ask technical questions depending on their area of expertise
- *Coding*: HackerRank/LeetCode questions
- *Web Development*: Ask about programs/ their process of creating a website
- *Application Development*: Ask about their process of creating a website/ a previous application that they have created and its capabilities

Professional Service Network Application -- Organization
Do you primarily consider the members of your team that would be engaging with TechTown as which of the following?

- Executive
- Founder
- Investor
- Lawyer
- CPA
- Service Provider
- Small and medium enterprises
- Coach / Mentor
- Consultant
- Developer
- Other

III. Potential Incentives

To ensure that developers will have a reason to come to TechTown, we have compiled a list of possible incentives.

1. Potential of becoming a Chief Technology Officer (CTO) of the partner company
   - Equity in the company
   - Lead on all technological decisions

2. Professional development and networking
   - Access to TechTown's PSN
   - Opportunities to connect with entrepreneurs and business leaders

3. Semi need-based monetary compensation for younger developers
   - Younger developers may try to pursue other opportunities to support themselves
   - Want to retain them within TechTown

4. Projects for portfolios
   - Work on credible products and services with high potential of being released into the market
   - Increases projects and experience to discuss in future job interviews

5. Opportunity to expand experience
   - Increase technical skills
   - Provides experience working with a small team
   - Increase problem solving skills, leadership skills, communication skills and patience

6. Public acknowledgement in newsletters/website
   - Personal exposure and marketing
7. Access to TechTown's coworking space
   - Complimentary place to work while matches are being found
   - Access to TechTown's facilities and printers

8. Access to TechTown's biggest event: Toast of the Town
   - Incredible networking opportunity with donors and investors
   - $100 or over value

"I believe TechTown is a valuable component of the Detroit startup community and important to support during the resurgence of the city and the novel growth of a new technology network" - Nafis

IV. Developer Discovery Recommendations

As to where to market the program and recruit developers, we have created a list of resources.

1. Universities
   - Universities around Detroit area: Wayne State University, Michigan State University, University of Michigan, Detroit Institute of Technology, University of Detroit Mercy
   - Send emails to STEM departments
   - Attend career fair/ campus showcase opportunities
   - Reach out to academic student clubs for cooperation

2. National organizations
   - IMB developer portal
     https://www.ibm.com/support/knowledgecenter/en/SSFS6T/com.ibm.apic.dev portal.doc/capim_portal_user_organizations.html
   - PHP User Groups
     http://www.phpusergroups.org/
   - International Webmaster's Association
     http://www.iwanet.org/
   - HTML Writer's Guild
     http://www.hwg.org/
   - Information Architecture Institute
     http://www.iainstitute.org/
   - Association for Computing Machinery (ACM)
   - IEEE
   - Software Development Forum
   - National Association of Programmers
   - Hacker Fellows

3. TechTown resources
   - Post marketing material on social media (e.g. LinkedIn, Instagram) and flyers inside TechTown office
   - Send newsletter to alumni of past Tech programs (DTX Launch, DTX Fellows, Business Incubation) advertising the opportunity and encouraging them to share it
   - Encourage EIRs to reach out to colleagues and friends about such opportunity
   - Tech Elevator

IV. Developer Guide

The guide details suggested topics for TechTown to coach developers on in order to train them to become better CTO material. This includes soft skills and a list of what developers and startups must mutually understand to foster a healthy partnership.

1. Defining partnership
   a. Startups need to clarify the project around:
      - Background research/resources about the project
      - Goals: the broad aims of the project, the significant, longer-term changes that planners expect to occur
      - Objectives: measurable and operationalized goals which specify the results and the level of change expected.
      - Mapping: a clear and realistic timeline with input and deliverables

   b. Clarify corresponding responsibilities
      i. The startups should let developers understand:
         - their roles, required capabilities, responsibilities and contribution
         - what they are accountable for and expected to deliver to their team and organisation's mission and goals
         - expectations around ethics, values and behaviour
         - how their performance will be measured and assessed
      ii. The developers should inform the startups:
         - Technical capabilities
         - Their evaluation about the feasibility of the ideas
         - Available time commitment

   c. Identify self-interests (for both sides)
      - short-term interests: deliverables and achievements inside the determined cooperation time zone to ensure the ongoing partnership
      - Type of compensation
      - Potential possibilities for further engagement

   d. Create rules of conduct
      - To ensure a safe, secure, and respectful workplace, the CTO (and all other employees) needs to abide by rules dictating appropriate conduct, including disciplinary actions for infractions.

   e. Understand legal aspect
      - The startup must ensure that:
         - The developers are treated as fairly as other employees
         - The developers are aware of their legal rights and labor laws
      - The developers must understand:
         - Labor laws and conduct codes
         - Employee voice in decision making
         - Employment security and policies on leave

2. Soft skills for the partnership

Authenticity		
Subjects	Format	Purpose
- Trust - Mindfulness - Openness	- Watch this TED talk: https://www.youtube.com/watch?v=d4iFA AUscVA - Be open about yourselves in a small group	- Step out of your comfort zone to connect the team better - Develop open, transparent relationships

Active Listening		
Subjects	Format	Purpose
- Listening skills - Trust - Mindfulness	- Read this article: https://www.mindtools.com/CommSkll/A ctiveListening.htm - Practice this listening in everyday conversations How to do: -Actively ask questions to clarify points -Listen and look for non-verbal cues, including body language, facial expressions, and tone of voice. -Restate and highlight the key points of agreement.	- Build trust within the group - Active listening builds respect within the group - Find out what people like and dislike

Be Personal		
Subjects	Format	Purpose
- Personal integrity - Trust - Openness	- Read this article: https://www.15five.com/blog/in-praise-of-being-personal-at-work/ - Practice in a group	- Be relatable in the workplace - Exhibit a fun atmosphere and do not be a robot - Draw the line between personal and unprofessional

Proactivity		
Subjects	Format	Purpose
- Organization - Work Ethic	- Read and reflect on this article: https://eatyourcareer.com/2010/08/how-be-proactive-at-work-step-system/ - Practice the steps individually	- Teach potential CTOs how to be proactive and efficient in work
Flexibility		
Subjects	Format	Purpose
- Mindfulness - Openness - Respect	Watch this short video: https://www.youtube.com/watch?v=j_MVvUoSdj8 - Read this article: https://www.thebalancecareers.com/workplace-flexibility-definition-with-examples-2059699 - Think about examples that you have shown, or could show	- Be flexible and open in collaboration - Respect others' choices and abilities
Work Relationships		
Subjects	Format	Purpose
- Relationship building - Understanding work dynamics	- Read this article: https://www.humorthatworks.com/learning/7-types-of-work-relationships/ - Think about which you would want	- Develop an understanding about different dynamics at work - Introduce potential CTOs to different relationship styles
Why Relationships?		
Subjects	Format	Purpose
- Relationship building - Understanding work dynamics	- Read this article: https://www.humorthatworks.com/learning/the-importance-of-relationships-in-the-workplace/ - Think of ways relationships in the workplace have affected you	- Demonstrate to CTOs why relationships in the workplace are important

Communication and Charisma		
Subjects	Format	Purpose
- Communication - Confidence - Public speaking	- Read these articles: https://www.forbes.com/sites/learnvest/2013/07/09/why-charisma-matters-in-the-work-world/#331f03425d71 and https://smallbusiness.chron.com/develop-charisma-workplace-14359.html	- Show why charisma is important in the workplace - Develop strategies for effective communication

3. Educational resources for further engagement
   a. Chief Technology Officer Duties
      - Leading technology teams in everyday operations
      - Conducting reviews of products or systems to evaluate their potential value to the company
      - Guiding strategic business decisions and resources allocation
      - Monitoring management of all hardware, software, databases and licences
      - Creating technology strategies for the development of an organisation
      - Ensuring technological processes follow federal guidelines for privacy and security

   b. Becoming a CTO
      - Reading list: https://www.goodreads.com/list/show/36429.Epic_CTO_Reading_List
      - Tech blogs to follow: https://stxnext.com/blog/2018/08/21/top-cto-tech-blogs/