

# Software Entrepreneurship

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# Outline

- Terms & Definitions
- Legal Entity
- Software Business Models
- Software Monetization Models
- Pricing & Cost

# Terms and Definitions 1

- Accounting: Systematic recording and reporting of financial transactions
- Assets: A business's cumulative financial holdings; cash, inventory, land equipment, investments
- Liabilities: Debts to the business, loans, credit, mortgage
- Revenue: Income generated from a the business
- Expenses: The cost of running the business
- Net Profit: Revenue - Expenses
- Net Worth/Equity: Assets - liabilities
- Net Loss: Surplus expenditure if revenue is less than expenses
- Profit margin: Ratio of profit to total sales
- Cash flow: Amount of money passing through the business
- Seed Capital: money raised to begin the development of a business

# Terms and Definitions 2

- Company stock: A stock (or equity) is a security that represents fractional ownership of a company and determines the profit share to the stakeholder
- Share: Units of stock eg company can have 1000 shares of stock
- Stakeholder equity: Percentage of stock ownership a stakeholder has eg 100/1000 shares = 10% equity of company
- Stakeholder: A party that has a vested interest in the company that can affect or be affected by the company
- Startups propose their own equity evaluation to investors
- The net worth of the company affects the cost of a share eg company with \$1000000 with 10000 shares => \$100 per share
- As company values fluctuate so do their shares hence traders buy and sell shares in anticipation of a fluctuation for profit.



[GameStop Short Squeeze](#)

# Legal Entity

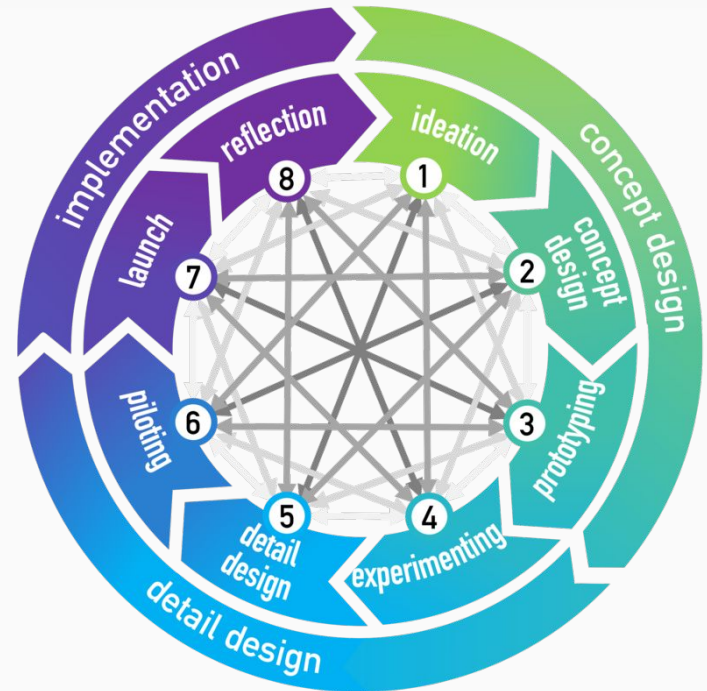
- When registering a business you must specify which one of the following legal entity it falls under:
- Sole proprietorship – someone who owns an unincorporated business by himself or herself
- Partnership – an easy way for business owners to share the responsibilities and profits of a company; typically strengthened by a partnership agreement.
- C corporation – the most common type of U.S. corporation, establishing a C Corporation offers liability protection meaning the business owners' assets are not at risk. Yet the downsides include heightened regulatory complexity and increased tax rates.
- Limited liability company (LLC) – somewhat of a hybrid between a general partnership and a corporation, LLCs offer the limited liability assurances that corporations offer without the penalty of double taxation.

[Registering a business in T&T](#)

# Business Models in Software

# Business Model Definition

- The profit strategy of a company.
- Identifies
  - Product or Service
  - Pricing & Cost
  - Selling plan
  - Target Market
  - Expenses
- Used to seek investment



# Tech Startup

- An early stage company founded by one or more entrepreneurs to develop a product or services (SaSS product) that they believe is in demand.
- High risk, most startups fail
- Funding mechanisms
  - **Small business loans**
  - **Venture Capitalists:** They are regulated firms that invest in a company via buying equity will receive payment if company is successful but nothing if company fails
  - **Angel Investors:** Same as VS but are individuals instead of a formal firm
  - **Crowdfunding:** Receiving funds from a large group on the promise of delivering the product later Eg gofundme, kickstarter, indiegogo
  - **Equity Crowdfunding:** selling equity to a large group
  - **Incubators:** Accelerator programs design to provide guidance and support to new small businesses



# Freelancer

- Professional developer for hire
- Self employed
- Does work on a ad hoc basis, Self managed, contracted temporary
- Can be temporarily contracted by a company
- Can work with multiple clients
- Hit a cap as project scale might have to work with a team which impacts control and income
- Good idea do develop a niche or specialization to improve quality & reputation and reduce delivery time.



# Consultancy

- A model that scales up on freelance by adding more hands to the job
- The consultant would subcontract work to other freelancers
- Consultant oversees the work and ensures the product is delivered on time and on budget
- Acts as the intermediary between the client and people doing the work
- Consultant is free to assemble whoever is necessary to get the job done
  - Developers
  - Project Managers
  - Designers
  - Marketing
- Consultants handle large scale projects and campaigns, provide strategy and end to end solutions
- High level or risk involved, organization trust of labour force is paramount

[What Is Software Development Consulting?](#)

# Software Company

- A business with more permanent full time staff rather than a consultancy
- Works on developing, maintaining and supporting software services
- Would often work on multiple projects but may offer their own software products as well
- Note there are many other business that have a development teams: Telecommunications, Banks etc



# Software Monetization

# Software Monetization Models

- Upfront, one time purchase
- Enterprise Software license
- Subscription Free
- Free tier + Pricing Plans
- Pay as you Go (Cloud)
- Advertisements
- User as a Product
- In-App purchases
- User Contribution
- B2B Platform Charges: eg free app for users but other business must pay to be on platform

ECONOM	BASIC	PREMIUM
\$9. <sup>99</sup>	\$19. <sup>99</sup>	\$49. <sup>99</sup>
DISC SPACE 50 Gb	DISC SPACE 100 Gb	DISC SPACE 300 Gb
BANDWITH 5 Gb	BANDWITH 10 Gb	BANDWITH 20 Gb
DATABASES 5	DATABASES 10	DATABASES 20
FREE DEDICATED IP NO	FREE DEDICATED IP YES	FREE DEDICATED IP YES
SUPPORT NO	SUPPORT NO	SUPPORT YES
SIGN UP	SIGN UP	SIGN UP

Software Monetization

# Software pricing and Cost

# Costing

- In principle, the price of a software product to a customer is simply the cost of development plus profit for the developer.
- When calculating a price, you should take broader organizational, economic, political and business considerations into account
- Considerations
  - Organizational concerns
  - Project risks
  - Type of contract

# Freelancing Cost

- Should be based on:
  - ALL of your costs
  - Estimated work hours
  - Promised delivery time
  - Opportunity cost
  - Sensible profit
- Start at a base rate then go by an hourly rate for larger projects



# Estimation Techniques

Algorithmic cost modelling	A model based on historical cost information that relates some software metric (usually its size) to the project cost is used. An estimate is made of that metric and the model predicts the effort required.
Expert judgement	Several experts on the proposed software development techniques and the application domain are consulted. They each estimate the project cost. These estimates are compared and discussed. The estimation process iterates until an agreed estimate is reached.
Estimation by analogy	This technique is applicable when other projects in the same application domain have been completed. The cost of a new project is estimated by analogy with these completed projects. Myers (Myers 1989) gives a very clear description of this approach.
Parkinson's Law	Parkinson's Law states that work expands to fill the time available. The cost is determined by available resources rather than by objective assessment. If the software has to be delivered in 12 months and 5 people are available, the effort required is estimated to be 60 person-months.
Pricing to win	The software cost is estimated to be whatever the customer has available to spend on the project. The estimated effort depends on the customer's budget and not on the software functionality.

# Value Based

- Need to properly establish the value of the product to the client
- Help the client appreciate that high effort results in high value of returns
- [Value Based Pricing](#)



# References

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- <https://lanars.com/blog/how-to-write-a-tech-startup-business-plan>
- [Business and finance terms you should know](#)
- [4 Most Common Business Legal Structures](#)
- [Software Pricing Models](#)