

# Patents and Trademark

$$F - E + V = 2$$

$$i\hbar \frac{\partial}{\partial t} \psi = \hat{H} \psi$$

$$\phi(x) = \frac{1}{\sqrt{2\pi\sigma}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$$

$$E = mc^2$$

$$dS \geq 0$$

$$\frac{\partial^2 u}{\partial t^2} = c^2 \frac{\partial^2 u}{\partial x^2}$$

$$\frac{df}{dt} = \lim_{h \rightarrow 0} \frac{f(t+h) - f(t)}{h}$$

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# Introduction

## Why It Matters:

- Intellectual Property (IP) rights protect creative works in software.
- As a software engineer, understanding these can help protect your own innovations and respect others' rights.




# General Overview of Patents

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## Patents Explained:

- **Definition:** A patent is an exclusive right granted for an invention, which could be a product or a process providing a new way of doing something, or offering a new technical solution to a problem.
- **Types of Patents:** Utility patents (for new machines or processes), design patents (for product designs), and plant patents (for plant varieties).
- **Why Patents?** They encourage innovation by providing inventors exclusive rights, thus offering a reward for inventing new solutions.
- **Global Impact:** Patents can foster global technological advancement by requiring detailed public disclosure of inventions.





# What's a Patent in Software?

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- A legal way to protect new inventions, including software algorithms, processes, or system designs.
- **Duration:** Typically 20 years from filing date.
- **Limit:** Geographically limited to the country of registration.
- **Examples:** Google's PageRank Algorithm, Apple's 'Slide to Unlock'.

# General Overview of Trademarks

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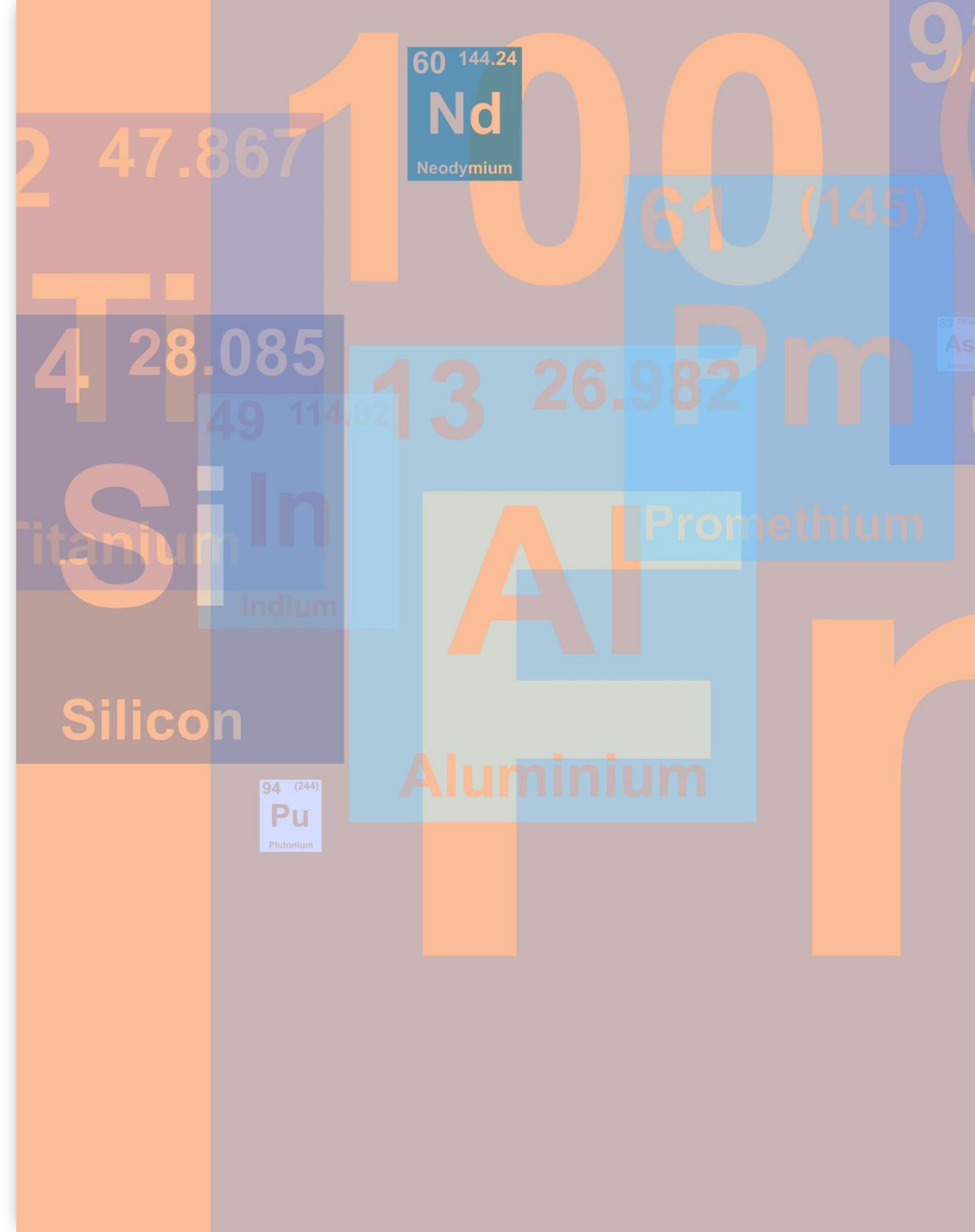
## What is a Trademark?

- **Definition:** A trademark is a sign capable of distinguishing the goods or services of one enterprise from those of other enterprises. Trademarks are protected by intellectual property rights.
- **Forms of Trademarks:** Can include names, logos, sounds, or even colors used in association with a brand.
- **Purpose:** Helps consumers identify and choose goods/services with the qualities and reputation they desire.
- **Significance:** Acts as a communication tool, legal protection for brands, and promotes global economic growth.

# Understanding Trademarks in Software

## Identifying Your Brand:

- Trademarks are symbols or words representing your software's brand.
- They are crucial in distinguishing your products in the market.
- **Types:**
  - Registered (®) offers more protection.
  - Unregistered (™) still holds legal weight.
- **Examples:** Microsoft's "Windows", the Apple logo.





# Relevance to Software Engineering

## Why Should You Care?

- **Protection:** Patents defend your software's unique functionalities.
- **Competition:** Trademarks help your product stand out, ensuring fair play in the market.
- **Innovation:** Knowing your work is protected can inspire further development.



# Case Studies

## **1.Apple vs. Samsung:**

1. Issue: Design patent infringement including icons and screen shape.
2. Outcome: Demonstrates the importance of unique design in software and hardware.

## **2.Google's Acquisition of Motorola:**

1. Key focus: Motorola's extensive patent portfolio.
2. Shows the strategic value of patents in business maneuvers.

## **3.Facebook in China:**

1. Challenge: Protecting trademark against local companies.
2. Insight: Trademark enforcement can vary significantly by country.



# Laws Governing Patents in Bangladesh

- **Primary Laws:**
  - Patent and Design Act, 1911
  - Patent and Design Rules, 1933
- **Authority:** Department of Patents, Designs, and Trademarks (DPDT)
- **Additional Laws:**
  - Bangladesh Patents and Designs (Amendment) Act, 2003: Aimed to modernize and strengthen patent protection, aligning more closely with international standards.
  - World Trade Organization's (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS): Bangladesh, as a member, conforms to TRIPS requirements for patents.



# International Aspects



- **Treaties:** TRIPS Agreement, Paris Convention.
- **Organizations:** WIPO, WTO.





# Laws Governing Trademarks in Bangladesh

- **Primary Laws:**
  - Trademarks Act, 2009
  - Trademarks Rules, 2015
- **Authority:** Also administered by the DPDT.
- **Additional Laws:**
  - Madrid Protocol (International Registration of Marks): Although not currently a member, Bangladesh is actively considering accession to this international system, which facilitates the registration of trademarks in multiple jurisdictions.
  - The Copyright Act, 2000: Provides a framework for protecting intellectual rights, including those linked to trademarks.



# Trademark Application Process in Bangladesh



## Preparation:

Conduct a preliminary search at DPDT to check the uniqueness of your trademark.

Determine the classes for your goods/services (based on the Nice Classification).



## Filing the Application:

Submit Form TM-1, along with:

- A clear representation of the trademark.
- A list of goods/services classified accordingly.
- Proof of payment for Tk. 3,000 for each class.



## Examination by DPDT:

The trademark is examined for distinctiveness, conflict with prior trademarks, and adherence to legal requirements.

This process can take several months.



## Objections & Responses:

If objections are raised, a reply must be filed within 2 months, addressing the concerns.

# Trademark Application Process in Bangladesh



## Publication in the Gazette:

After clearance, the trademark is published in the Bangladesh Gazette.

This opens a window for third parties to oppose the registration.



## Opposition Period:

A 2-month period post-publication is allowed for any oppositions to be filed.



## Registration:

If no oppositions, or if resolved in favor of the applicant:

- Pay the registration fee (Tk. 1,000).
- A Certificate of Registration is issued.



## Validity and Renewal:

The registration is valid for 7 years.

Renewal is required every 10 years, with a renewal fee of Tk. 3,000.

# Patent Application Process in Bangladesh



## Preparation:

Conduct a patent search to ensure novelty and non-obviousness.  
Prepare detailed descriptions, claims, abstracts, and drawings (if applicable).



## Filing the Application:

Submit Form-1 (application) along with:

- Complete specification in Form-2.
- Abstract of the invention.
- Proof of payment for the application fee (Tk. 2,000 for ordinary; Tk. 10,000 for a priority application).



## Examination by DPDT:

A formal and substantive examination for novelty, inventive step, and industrial applicability.



## Response to Objections:

Applicant must respond to any objections in the examination report within 6 months.



# Patent Application Process in Bangladesh



## Publication:

Accepted applications are published in the official gazette.  
Open for public opposition for 4 months



## Opposition Period:

Timeframe for any third party to file opposition to the grant of the patent



## Granting of Patent:

If no opposition or if resolved, pay the sealing fee (Tk. 5,000).  
Issuance of the Patent Certificate.



## Patent Term:

Valid for 16 years from filing date, or 20 years from priority date, whichever is earlier.

# Criteria for Obtaining Patents



## **Novelty:**

The invention must be new, meaning it has not been disclosed to the public anywhere in the world before the filing date.



## **Inventive Step:**

The invention must not be obvious to someone with knowledge and experience in the subject.



## **Industrial Applicability:**

The invention should be capable of industrial application, i.e., it can be made or used in any kind of industry.



## **Subject Matter Eligibility:**

Must be a process, machine, manufacture, or composition of matter.  
Not just an abstract idea, natural phenomenon, or purely mental process.



## **Sufficient Disclosure:**

The patent application must fully disclose the invention, enabling an individual skilled in the art to replicate it.



## **Legality:**

Invention should not be contrary to law, morality, public order, or public health.

# Criteria for Obtaining Trademarks



## **Distinctiveness:**

Marks should be distinctive enough to distinguish goods/services from others.



## **Non-Deceptiveness:**

Should not deceive or cause confusion about the nature, quality, or geographical origin of the goods/services.



## **No Conflict with Existing Trademarks:**

Must not be identical or similar to an earlier trademark for the same/similar goods/services.



## **Visual Representation:**

Should be graphically representable, typically visually perceivable in a certain form.



## **Not Prohibited Under Law:**

Marks shouldn't be scandalous or contrary to the country's morality or public order.

Shouldn't be a well-known term in current language or in established practice.



## **Special Considerations:**

3D shapes, colors, sounds, and even smells can be trademarked if they meet the criteria.



- **IP Rights vs. Public Good:** Protecting innovation without hindering accessibility.
- **Software Engineers' Role:** Ethically using and protecting IP.
- **Innovation vs. Accessibility:** Considering proprietary vs open-source models.

# Ethical and Social Implications

# Challenges and Considerations



**Patent Risks:** Broad patents and evolving tech can complicate compliance.



**Patent Trolls:** Facing entities that leverage patents for litigation.



**Trademark Search Importance:** Ensuring brand uniqueness to avoid legal troubles.





Thanks