

**HANOI UNIVERSITY OF SCIENCE AND TECHNOLOGY**

# **GRADUATION THESIS**

**Building a social media application for sharing  
image and video**

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Due to the limited time to carry out the project and my limited knowledge, the thesis may have many shortcomings. I look forward to receiving additional comments and suggestions from teachers and friends, helping me to complete the project and gain experience for the process of learning and working in the future.

# **ABSTRACT**

Nowadays, along with the explosion and robust development of the internet, generations of computers, smartphones, and social networking sites are also growing. Social networks have gradually become an indispensable part of modern life. They bring many utilities in all aspects of social life such as: commerce, study, entertainment.

In today's era, images and videos are the most popular online content, as they are highly visual, interactive, and entertaining. To meet the needs of users, I want to build a social network that allows users to share their own images and videos with others, while also connecting them with people who have similar interests.

The main tasks of this graduate project include: system analysis and design, and building a social networking site that allows users to share personal feelings through posts, photos, and videos and follow each other. They can also interact through messaging, commenting, online calling, video calling, etc. Users can also manage and edit their personal profiles.

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# CHAPTER 1. INTRODUCTION

## 1.1 Motivation

The 21st century is considered as the development era of information technology (IT). Along with the globalization process, the explosion of smart electronic devices such as tablets and smartphones, the participation of individuals on the network is increasingly active, leading to the need to share information, connecting with friends is a necessary need to promote the birth and development of social networks. Today, with just a smartphone device connected to the internet, users can exchange and contact anyone anywhere through social networks.

Social networks develop widely and prove their attraction and role in most aspects of social life from information exchange, learning, entertainment to business and commerce. appear and take place easily through social networks. It can be said that social networks have really become close and popular, or even have become an indispensable part of today's modern society.

According to statistics by April 2023 [1] of NapoleonCat (a tool to measure social network indicators), the total number of Facebook social network users in Vietnam is nearly 85 million people, accounting for more than 83% of the country population, an increase of 30 million users compared to 2019 [2]. Instagram social network with nearly 11 million people (June 2021), of which the audience is mainly young people, the age group 18-24 accounts for more than 30% of the total. In addition, it is impossible not to mention social networks with a huge number of users such as TikTok, Twitter, Telegram, etc.

With the number of users of social networks as above, Vietnam is currently ranked 7th in the number of social network users in the world. On average, young Vietnamese users spend about 7 hours per day using social networks. Photos and videos are highly preferred content types because they are highly interactive, entertaining, and intuitive. Thus, I decided to choose the topic "Building a social media application for sharing image and video" for the thesis.

## 1.2 Objectives and scope of the graduation thesis

The objectives and scope of the project are to design and build a social network that can run on the web platform, meeting the basic functions of users such as posting images and videos, following other users, and interacting with other users through functions such as messaging, commenting on posts, online calling, and video calling. Users can also edit personal profiles, and manage posts.