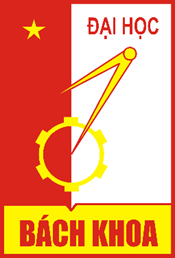
**Hanoi University of Science and Technology**

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**OOP & Java Lab**

**Report for Mini-Project**

**Team 06**

**Project Name**: 7.Demonstration of types of COVID-19 virus and its mechanism

# Members:

# Bùi Trần Hải Quân – 20194821

# Nguyễn Minh Quân – 20194823

# Trần Quang Thái – 20194836

# Assignment of members

# Bui Tran Hai Quan

# Search for virus details, build the structure of each specific virus, the infection stages, symptoms, and infecting method of all virus

# Collect images about structure of virus

# hust.soict.globalict.Virus: Herpes, COVID-19, Rota, Astro, Adeno

# hust.soict.globalict.Assets: Herpes, COVID-19, Rota, Astro, Adeno

# Initial implementation of virus in [hust](https://github.com/tqthai2001/OOLT.ICT.20212.Team06/tree/main/Virus/src/hust)/[soict](https://github.com/tqthai2001/OOLT.ICT.20212.Team06/tree/main/Virus/src/hust/soict)/globalict/VirusMain

# Build MainScreen and HelpScreen

# Nguyen Minh Quan

# Implement the types of Virus: Enveloped and Non-Enveloped

# Build attributes of Virus

# Construct the Structure Screen of all virus

# hust.soict.globalict.Virus: Element, VirusWith/WithoutEnvelope

# [hust](https://github.com/tqthai2001/OOLT.ICT.20212.Team06/tree/feature/attack/Virus/src/hust)/[soict](https://github.com/tqthai2001/OOLT.ICT.20212.Team06/tree/feature/attack/Virus/src/hust/soict)/[globalict](https://github.com/tqthai2001/OOLT.ICT.20212.Team06/tree/feature/attack/Virus/src/hust/soict/globalict)/Screen: VirusStructureScreen

# hust.soict.globalict.Controller: VirusStructureController

# Tran Quang Thai

# Implement screen of all infecting stages for virus: Virus With Envelope, Virus Without Envelope

# [hust](https://github.com/tqthai2001/OOLT.ICT.20212.Team06/tree/feature/attack/Virus/src/hust)/[soict](https://github.com/tqthai2001/OOLT.ICT.20212.Team06/tree/feature/attack/Virus/src/hust/soict)/[globalict](https://github.com/tqthai2001/OOLT.ICT.20212.Team06/tree/feature/attack/Virus/src/hust/soict/globalict)/Screen: infecting Screen

# hust.soict.globalict.Controller: Virus Controller, VirusInfectingController

# Merging between the VirusStructureScreen and VirusInfectingScreen

# Merging all work of each member to main, adding new features to Acid nucleic and Capsid.

# Mini-project Description

# Mini-project requirement

# Project Name: Demonstration of types of COVID-19 virus and its mechanism

# The main purpose of this project is to illustrate the detail structure and the infecting stages of some common viruses. As we all know, COVID-19 pandemic has been affected deeply to our lives all over the world: fallen-down economy, millions of people has died,… Thus, there is a necessary requirement of understanding the different types of the virus, as well as the way they infect to have the basic knowledge to prevent them. Every virus has 2 basic elements: acid nucleic and capsid. Based on their structure, viruses are divided into 2 categories: Enveloped virus and Non-enveloped virus. Our application, which contains 6 viruses (HIV, COVID-19, Herpes, Rota, Astro and Adeno virus), will concentrate on what the viruses are constructed from and how they attack host-cells.

# Use-case diagram and explaination

# Diagram Description automatically generated

# Firstly, users could have ability to access the application. In the main menu screen, they can click at “Help” button to get the support of introducing about this project and instructions for use. Users can also pick up the type of virus: “Virus with envelope” or “Virus without envelope”. “Virus with envelope” contains HIV, COVID-19, Herpes. Meanwhile, “Virus without envelope” includes Rota, Astro and Adeno virus. Users can observe the particular structrure of each virus if they choose one type of above viruses. After that, they can view the infecting stages step by step, the program enables users go backward/forward at every step. Moreover, this application has a “go back” area, which makes returning to main menu convenient.

# Design

# General class diagram

# Diagram Description automatically generated

# Packages and detail class diagrams