Slide đẹp: [link](https://prezi.com/rcyjn5muvrhh/bao-cao/)

# **1 số yêu cầu nên xem:**

**Tìm hiểu Các chức cần có cho trang web sàn thương mại điện tử:** [**link**](https://secomm.vn/vi/14-tinh-nang-can-co-de-xay-dung-san-thuong-mai-dien-tu/)[**link2**](https://tuhocdohoa.vn/do-an-xay-dung-san-thuong-mai-dien-tu/) [link3](https://tamnguyen.com.vn/cac-chuc-nang-can-co-cua-website-thuong-mai-dien-tu.html) [link5](https://www.linkedin.com/pulse/15-t%C3%ADnh-n%C4%83ng-ph%E1%BA%A3i-c%C3%B3-cho-website-th%C6%B0%C6%A1ng-m%E1%BA%A1i-%C4%91i%E1%BB%87n-t%E1%BB%AD-le-chung/)

Chức năng và thiết kế: [link4](https://letweb.net/72-tinh-nang-can-co-cua-mot-website-thuong-mai-dien-tu/) [link6](https://magenest.com/vi/thiet-ke-website-thuong-mai-dien-tu/)

chuẩn SEO và tốc độ tải phải nhanh: [link](https://www.facebook.com/groups/j2team.community/permalink/1756103044721808/)

Thiết kế một hệ thống bán hàng cơ bản: [link](https://ngontumathuat.com/post/designing-an-e-commerce-system-thiet-ke-mot-he-thong-ban-hang-co-ban-qPfqrNZUBW6SDwuYnNJK/)

chuyển khoản đơn hàng tự đổi trạng thái: [link](https://www.facebook.com/groups/j2team.community/permalink/2171044903227618/)

icon cho Thương Mại Điện Tử**:** [**link**](https://www.facebook.com/groups/j2team.community/permalink/1877069069291871/)

**Build a Real-Time Order Book Application:** [**link**](https://www.freecodecamp.org/news/react-websockets-project-build-real-time-order-book-app/)

**Design Inspiration:** [**link**](https://collectui.com/challenges/sign-up)[**link2**](https://blog.ahmedzougari.com/top-30-webapp-design-inspiration-sites-for-your-next-project)

**Tích hợp Giao hàng Nhanh vào web:** [**link**](https://www.youtube.com/watch?v=7Yht_DEfRIY)

**Tăng trải nhiệm của khách hàng:** [**link**](https://magenest.com/vi/trai-nghiem-khach-hang/)

**Blockchain trong giao dịch trực tuyến (api Blockchain into online transactions of store):** [**link**](https://bitcoin.stackexchange.com/questions/76524/how-do-i-connect-my-online-store-to-the-blockchain)

API momo thanh toán: [link](https://www.facebook.com/groups/j2team.community/permalink/1441597726172343/)

**Thêm tính năng so sánh:** [**link**](https://miviet.com/so-sanh)

Oauth2 Service API Spring boot, Elasticsearch, tự động update database với AuditorAware: [link](https://viblo.asia/u/nguyen.ngoc.van/) [link2](https://github.com/spring-projects/spring-security-samples)

**Thống kê giá sản phẩm theo thời gian**

**Spring security phân quyền:** [**link**](https://techmaster.vn/posts/36586/spring-security-authorization#8-expression-based-access-control)[**link**](https://viblo.asia/p/mo-hinh-phan-quyen-acl-trong-spring-security-maGK7G1eKj2)[**link**](https://viblo.asia/p/gioi-thieu-ve-spring-security-acl-E375zOw1KGW)

**Authentication and Authorisation:** [**link**](https://www.youtube.com/watch?v=KxqlJblhzfI)[**link**](https://www.youtube.com/watch?v=VVn9OG9nfH0&list=PLwvrYc43l1Mz_c-vV1yVyvFNFZPAleSNE&index=16)[**link**](https://techmaster.vn/posts/37231/spring-security-nang-cap-websecurityconfigureradapter-khong-duoc-chap-nhan)[**lý thuyết**](https://techmaster.vn/posts/37370/spring-security-authentication)

**Authentication JWT in VueJS:** [**link**](https://www.bezkoder.com/jwt-vue-vuex-authentication/#Overview_of_Vue_JWT_Authentication_example)

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**self-referencing relationship:** [**link**](https://stackoverflow.com/questions/55025885/self-referencing-relationship-with-spring-data-jpa)

**Phân biệt save, persist, update, merge, saveOrUpdate trong hibernate:** [**link**](https://topdev.vn/blog/phan-biet-save-persist-update-merge-saveorupdate-trong-hibernate/#1-2-cac-trang-thai-cua-1-the-hien-entity)

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**Component có sẵn in vue:** [**link**](https://element.eleme.io/#/en-US/component/datetime-picker)

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**Spring securiry DOC:** [**link**](https://docs.spring.io/spring-security/site/docs/current/api/org/springframework/security/config/annotation/web/builders/HttpSecurity.html#formLogin())[**deprecated**](https://docs.spring.io/spring-security/site/docs/current/api/deprecated-list.html)

**Exception:** [**link**](https://viblo.asia/p/xu-ly-exception-phat-sinh-trong-ung-dung-spring-boot-6J3ZgWkLZmB)

**Access module from Vuex Store:** [**link**](https://stackoverflow.com/questions/49678333/access-module-from-vuex-store)

**Phải làm sao?**

* Tìm hiểu sơ qua về VueJS (vì có 1 số framwork) (trong sáng nay): [link](https://viblo.asia/s/bi-kip-luyen-cong-vuejs-rLZDX4AEZk0)
* Bắt đầu code

Promises from Vuex actions: [link](https://stackoverflow.com/questions/40165766/returning-promises-from-vuex-actions)

**Vee-validate in Vue:** [**link**](https://vee-validate.logaretm.com/v2/guide/localization.html#using-data-vv-as)[**link**](https://vee-validate.logaretm.com/v4/examples/ui-libraries/)

**Vấn đề về load dữ liệu:**

**Vấn đề mảng rỗng, xử lý vấn đề N+1: sử dụng** [**Fetch Join**](https://stackoverflow.com/questions/73666307/query-in-spring-boot-jpa-onetomany-list-relation)

**Lỗi List trống trong quan hệ @onetomany:** [**link**](https://stackoverflow.com/questions/62451029/java-jpa-onetomany-relation-and-query?rq=3)[**link**](https://stackoverflow.com/questions/42949639/select-onetomany-query-jpql?rq=3)

* **Fix: ommit a field on @data:** [**link**](https://stackoverflow.com/questions/7994119/omitting-one-setter-getter-in-lombok)

**spring-boot-upload-multiple-files:** [**link**](https://www.bezkoder.com/spring-boot-upload-multiple-files/)[**Link**](https://stackoverflow.com/questions/54519998/upload-multiple-file-with-vue-js-and-axios)[**link**](https://stackoverflow.com/questions/58682247/loading-images-in-vue-js-from-an-api?rq=3)[**link**](https://www.bezkoder.com/vue-multiple-files-upload/)

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**Preview image:** [**link**](https://stackoverflow.com/questions/62777504/show-spinner-while-loading-image-in-vue-js)[**link**](https://vee-validate.logaretm.com/v4/examples/array-fields/)[**link**](https://developer.mozilla.org/en-US/docs/Web/API/URL/createObjectURL_static)[**link**](https://stackoverflow.com/questions/69227638/delete-image-from-preview-in-vuejs)

**Chỉnh sửa ảnh:** [**link**](https://stackoverflow.com/questions/32766554/normal-file-reading-using-file-api)[**link**](https://stackoverflow.com/questions/28042535/converting-image-object-to-file-object-javascript?rq=4)[**link**](https://stackoverflow.com/questions/60454048/how-does-axios-handle-blob-vs-arraybuffer-as-responsetype?noredirect=1&lq=1)

**N+1 query:** [**EntityGraph**](https://tech.asimio.net/2020/11/06/Preventing-N-plus-1-select-problem-using-Spring-Data-JPA-EntityGraph.html)[**@BatchSize and @Fetch**](https://hackernoon.com/3-ways-to-deal-with-hibernate-n1-problem)

A screenshot of a website

Description automatically generated