



2.3 Demonstrate ability to customize request routing

Describe request routing and flow in Magento.

Frontend routers:

- robots (10)
- urlrewrite (20)
- standard (30) - module/controller/action
 - get modules by front name registered in routes.xml
 - find action class
 - if action not found in all modules, searches “noroute” action in *last* module
- cms (60)
- default (100) - noRouteActionList - ‘default’ noroute handler

Adminhtml routers:

- admin (10) - extends base router - module/controller/action, controller path prefix “adminhtml”
- default (100) - noRouteActionList - ‘backend’ noroute handler

Default router (frontend and backend):

- noRouteHandlerList. process
 - backend (10) *Default admin 404 page* “adminhtml/noroute/index” when requested path starts with admin route.
 - default (100) *Default frontend 404 page* “cms/noroute/index” - admin config option `web/default/no_route`.
- always returns forward action - just mark request not dispatched - this will continue match loop

When is it necessary to create a new router or to customize existing routers?

Create new router when URL structure doesn’t fit into module/controller/action template, e.g. fixed robots.txt or dynamic arbitrary rewrites from DB.

If you want to replace controller action, you can register custom module in controller lookup sequence - reference route by ID and add own module “before” original module.

How do you handle custom 404 pages?

1. If [front controller](#) catches [\Magento\Framework\Exception\NotFoundException](#), it changes action name “noroute” and continues loop. E.g. catalog/product/view/id/1 throws NotFoundException. catalog/product/noroute is checked.
2. If standard router recognizes front name but can’t find controller, it tries to find “noroute” action from last checked module. E.g. catalog/brand/info controller doesn’t exist, so

catalog/brand/noroute will be checked.

[\Magento\Framework\App\Router\Base::getNotFoundAction](#)

3. If all routers didn't match, default controller provides two opportunities:

- set default 404 route in admin config `web/default/no_route` (see: [\Magento\Framework\App\Router\NoRouteHandler::process](#))
- register custom handler in `noRouteHandlerList`:
 - backend (sortOrder: 10) [Magento\Backend\App\Router\NoRouteHandler](#) -> `adminhtml/noroute/index`
 - default (sortOrder: 100) [Magento\Framework\App\Router\NoRouteHandler](#)