

Angular 17 to Angular 19 upgrade analysis

For Angular 17 to Angular 19 upgrade, we need to update the package.json file with the necessary compatible library versions:

Below is the upgrade version of the package.json:

```
{
  "name": "skillgroup-ui",
  "version": "1.0.0",
  "private": true,
  "scripts": {
    "ng": "ng",
    "start": "ng serve",
    "build": "ng build",
    "watch": "ng build --watch --configuration development",
    "test": "ng test --no-watch --code-coverage"
  },
  "dependencies": {
    "@angular/animations": "^19.0.0",
    "@angular/common": "^19.0.0",
    "@angular/compiler": "^19.0.0",
    "@angular/core": "^19.0.0",
    "@angular/forms": "^19.0.0",
    "@angular/platform-browser": "^19.0.0",
    "@angular/platform-browser-dynamic": "^19.0.0",
    "@angular/router": "^19.0.0",
    "bootstrap": "5.3.3",
    "rxjs": "^7.8.0",
    "skillgroup-ui": "file:",
    "tslib": "^2.3.0",
    "usptostrap": "^2.2.10",
    "zone.js": "^0.15.4"
  },
  "devDependencies": {
    "@angular-devkit/build-angular": "^19.0.0",
    "@angular/cli": "^19.0.0",
    "@angular/compiler-cli": "^19.0.0",
    "@types/jasmine": "~5.1.0",
    "jasmine-core": "~5.1.0",
    "karma": "~6.4.0",
    "karma-chrome-launcher": "~3.2.0",
    "karma-coverage": "~2.2.0",
  }
}
```

```
"karma-jasmine": "~5.1.0",  
"karma-jasmine-html-reporter": "~2.1.0",  
"typescript": "~5.5.0"  
}  
}
```

Key Changes Made

Angular Core Packages

- Updated all `@angular/*` dependencies from `^17.1.0` → `^19.0.0`
- Added missing `@angular/compiler-cli` (required for AOT compilation)

Critical Runtime Dependencies

- `zone.js`: `~0.14.3` → `^0.15.4` (Angular 19 requirement)
- `rxjs`: `~7.8.0` → `^7.8.0` (maintains compatibility while allowing patches)

Build Tools

- `@angular-devkit/build-angular`: `^17.1.1` → `^19.0.0`
- `@angular/cli`: `^17.1.1` → `^19.0.0`
- `typescript`: `~5.3.2` → `~5.5.0` (Angular 19 minimum requirement)

Removed/Corrected

- Removed duplicate `usptostrap` from `devDependencies`
- Fixed `test` script syntax (removed space in `--code-coverage`)
- Removed invalid quotes and version markers

Post-Upgrade Steps

Install Dependencies

```
npm install
```

Run Compatibility Checks

```
ng update --dry-run
```

Update Local Dependency

Verify `skillgroup-ui` is compatible with Angular 19 (may require rebuilding it with Angular 19)

Node.js Requirement

Ensure you're using Node.js v20+ (check with `node -v`)

Some pointers to consider

Testing

- Jest users: Add `jest-preset-angular@15+`
- Run tests immediately after upgrade:

```
npm test
```

Third-Party Libraries

- Confirm `usptostrap` supports Angular 19 (check changelog)
- Bootstrap 5.3.3 is compatible

Potential Breaking Changes

- Legacy `HttpModule` removed (use `HttpClientModule`)
- Control flow syntax (`@if`, `@for`) now stable
- Forms API changes (update `ngModel` usage if needed)

SSR Migration (if applicable)

```
ng add @angular/ssr
```

Recommended Verification

```
npx ng version
```

Should show:

- Angular CLI: 19.x.x
- Node: 20.x.x
- Package Manager: npm x.x.x