<https://gemini.google.com/u/1/app/bf28f389cd093e55?is_sa=1&android-min-version=301356232&ios-min-version=322.0&campaign_id=bkws&utm_source=google&utm_medium=cpc&utm_campaign=2024enUS_gemfeb&pt=9008&mt=8&ct=p-growth-sem-bkws>

<https://gemini.google.com/u/1/app/1d4834db0819faf2>

<https://gemini.google.com/u/1/app/d423d51e9f40da78>

### 3\. Updated Production-Ready Specification (`religious\_service\_schedules`)

This document details the structure, purpose, and considerations for the `religious\_service\_schedules` table, Version 1.3.1 (reflecting RLS role name alignment and no `\_en` denormalized labels). This version incorporates full V2 enhancements including robust audit fields, refined i18n strategy, and `is\_active` checks for its foreign keys to `religious\_service\_types\_master` and `languages\_master`. It remains a child table of `attractions\_details`.

1\. Purpose & Primary Use-Cases

The `religious\_service\_schedules` table stores specific, repeatable schedules for religious services (e.g., Mass, Vespers, Adoration) offered at attractions that are religious sites (like churches, monasteries, basilicas). It allows for structured entry of service types, timings, languages, and other relevant notes for pilgrims. This information is critical for pilgrims wishing to participate in religious observances during their journey, aiding in their spiritual and logistical planning.

Key user-story touchpoints:

- Pilgrim: Finding Mass times or other service schedules for a specific church or religious site along their route (Story A4).

- Pilgrim: Knowing the language of a service and any specific notes (e.g., "pilgrim mass," "usually crowded").

- Content Manager/Admin: Accurately inputting and maintaining service schedules for religious attractions.

- System/UI: Displaying a clear, filterable list of services for a religious site, potentially allowing users to filter by service type or day.

2\. Schema

| column | data\_type | constraints | description |

| `id` | `BIGINT` | Primary Key (Generated as identity always) | Unique identifier for this specific service schedule entry. |

| `attraction\_waypoint\_id` | `BIGINT` | Not Null, Foreign Key to `public.attractions\_details(waypoint\_id)` ON DELETE CASCADE | Links to the parent attraction/religious site in `attractions\_details` (which is also a `waypoints.id`). |

| `service\_type\_id` | `INTEGER` | Not Null, Foreign Key to `public.religious\_service\_types\_master(id)` ON DELETE RESTRICT | Type of service (e.g., 'mass', 'vespers'), linking to an \*active\* `religious\_service\_types\_master` record. |

| `schedule\_description\_text` | `TEXT` | Not Null, CHECK (length(`schedule\_description\_text`) > 0) | Human-readable description of when it occurs (e.g., "Weekdays at 18:00", "Sundays & Holydays at 09:00 and 11:00"). Primary reference language (English) text. (Translatable via `public.translations`). |

| `days\_of\_week` | `weekday\_enum[]` | Nullable | If applicable, specific days of the week this service occurs. Uses `public.weekday\_enum`. Helps with filtering. |

| `time\_of\_day` | `TIME WITHOUT TIME ZONE` | Nullable | Specific start time if it's a regular daily/weekly occurrence. |

| `language\_code` | `CHAR(2)` | Nullable, Foreign Key to `public.languages\_master(language\_code)` ON DELETE SET NULL ON UPDATE CASCADE | Primary language code of the service (e.g., "it", "en", "la"). Links to an \*active\* `languages\_master` record (i.e., `is\_active\_for\_platform = true`). |

| `language\_notes` | `TEXT` | Nullable | Additional notes about language use in the service if `language\_code` is not sufficient (e.g., "Sermon in English, liturgy in Latin"). Primary reference language (English) text. (Translatable via `public.translations`). |

| `location\_within\_site\_notes` | `TEXT` | Nullable | Specific location if the site has multiple chapels/altars (e.g., "Main Altar," "Side Chapel of St. Clare"). Primary reference language (English) text. (Translatable via `public.translations`). |

| `seasonal\_validity\_notes` | `TEXT` | Nullable | Notes on seasonal variations in the schedule (e.g., "Summer schedule (June-Aug): 19:00"). Primary reference language (English) text. (Translatable via `public.translations`). |

| `is\_pilgrim\_specific\_service` | `BOOLEAN` | Not Null, Default `false` | Flags if this service is specifically aimed at or tailored for pilgrims. |

| `service\_notes` | `TEXT` | Nullable | Other important notes for pilgrims (e.g., "Usually very crowded, arrive early," "Pilgrim blessing included"). Primary reference language (English) text. (Translatable via `public.translations`). |

| `data\_last\_verified\_at` | `TIMESTAMPTZ` | Nullable | When this specific service schedule was last verified by an editor or reliable source. |

| `created\_at` | `TIMESTAMPTZ` | Not Null, Default `now()` | Timestamp of record creation. |

| `created\_by\_profile\_id` | `UUID` | Nullable, Foreign Key to `public.profiles(id)` ON DELETE SET NULL | Profile ID of the user who created this service schedule. |

| `updated\_at` | `TIMESTAMPTZ` | Not Null, Default `now()` | Timestamp of last update (auto-updated by trigger). |

| `updated\_by\_profile\_id` | `UUID` | Nullable, Foreign Key to `public.profiles(id)` ON DELETE SET NULL | Profile ID of the user who last updated this service schedule. |

3\. PostgreSQL DDL

SQL

```

-- Ensure prerequisite tables are V2 compliant and created first:

-- public.attractions\_details (BIGINT waypoint\_id PK) (Version 1.3.1 or higher)

-- public.profiles (UUID id PK, roles TEXT[])

-- public.languages\_master (CHAR(2) language\_code PK, display\_name\_en TEXT, is\_active\_for\_platform BOOLEAN) (Version 2.1)

-- public.religious\_service\_types\_master (INTEGER id PK, label TEXT, is\_active BOOLEAN) (Version 1.1)

-- public.translations (for i18n)

-- public.content\_statuses\_master (INTEGER id PK, is\_publicly\_visible BOOLEAN) -- Used by RLS via parent waypoints

-- public.waypoints (BIGINT id PK, content\_visibility\_status\_id INTEGER, deleted\_at TIMESTAMPTZ) -- Used by RLS via parent

-- ENUM Type for days\_of\_week (ensure it exists globally or create if not)

DO $$

BEGIN

IF NOT EXISTS (SELECT 1 FROM pg\_type WHERE typname = 'weekday\_enum') THEN

CREATE TYPE public.weekday\_enum AS ENUM ('monday', 'tuesday', 'wednesday', 'thursday', 'friday', 'saturday', 'sunday');

END IF;

END$$;

COMMENT ON TYPE public.weekday\_enum IS 'Standard weekdays for scheduling purposes. Version 1.0'; [cite: 318]

-- Master table for Religious Service Types (Version 1.1 - Assumed V2 Compliant)

CREATE TABLE IF NOT EXISTS public.religious\_service\_types\_master (

id INTEGER GENERATED ALWAYS AS IDENTITY PRIMARY KEY,

code TEXT UNIQUE NOT NULL CHECK (length(code) > 0 AND length(code) <= 50 AND code ~ '^[a-z0-9\_]+$'),

label TEXT NOT NULL CHECK (length(label) > 0 AND length(label) <= 100), -- Primary reference language (English). Translatable. [cite: 314]

description TEXT NULL, -- Primary reference language (English). Translatable. [cite: 314]

icon\_identifier TEXT NULL CHECK (icon\_identifier IS NULL OR length(icon\_identifier) <= 100), -- [cite: 314]

sort\_order INTEGER NOT NULL DEFAULT 0, -- [cite: 314]

is\_active BOOLEAN NOT NULL DEFAULT true,

created\_at TIMESTAMPTZ NOT NULL DEFAULT now(), -- [cite: 314]

updated\_at TIMESTAMPTZ NOT NULL DEFAULT now(), -- [cite: 314]

created\_by\_profile\_id UUID NULL REFERENCES public.profiles(id) ON DELETE SET NULL,

updated\_by\_profile\_id UUID NULL REFERENCES public.profiles(id) ON DELETE SET NULL

);

COMMENT ON TABLE public.religious\_service\_types\_master IS 'Master list of religious service types (e.g., Mass, Vespers). `label` and `description` are translatable. Version 1.1'; [cite: 315]

COMMENT ON COLUMN public.religious\_service\_types\_master.label IS 'Primary reference language (English) label. (Translatable via public.translations)'; [cite: 316]

COMMENT ON COLUMN public.religious\_service\_types\_master.description IS 'Optional primary reference language (English) description. (Translatable via public.translations)'; [cite: 317]

COMMENT ON COLUMN public.religious\_service\_types\_master.is\_active IS 'True if the service type is active and available for use.';

CREATE INDEX IF NOT EXISTS idx\_religious\_service\_types\_master\_is\_active ON public.religious\_service\_types\_master(is\_active);

CREATE TRIGGER trigger\_religious\_service\_types\_master\_set\_updated\_at

BEFORE UPDATE ON public.religious\_service\_types\_master FOR EACH ROW EXECUTE FUNCTION public.set\_current\_timestamp\_updated\_at();

CREATE OR REPLACE FUNCTION public.cleanup\_religious\_service\_type\_translations()

RETURNS TRIGGER AS $$ BEGIN DELETE FROM public.translations WHERE table\_identifier = 'religious\_service\_types\_master' AND row\_foreign\_key = OLD.id::TEXT; RETURN OLD; END; $$ LANGUAGE plpgsql SECURITY DEFINER;

CREATE TRIGGER trigger\_cleanup\_religious\_service\_type\_translations

AFTER DELETE ON public.religious\_service\_types\_master FOR EACH ROW EXECUTE FUNCTION public.cleanup\_religious\_service\_type\_translations();

COMMENT ON TRIGGER trigger\_cleanup\_religious\_service\_type\_translations ON public.religious\_service\_types\_master IS 'Cleans up orphaned translations for religious\_service\_types\_master.';

-- Religious Service Schedules Table (Version 1.3.1)

CREATE TABLE public.religious\_service\_schedules (

id BIGINT GENERATED ALWAYS AS IDENTITY PRIMARY KEY, -- [cite: 313]

attraction\_waypoint\_id BIGINT NOT NULL, -- [cite: 313]

service\_type\_id INTEGER NOT NULL, -- [cite: 313]

schedule\_description\_text TEXT NOT NULL CHECK (length(schedule\_description\_text) > 0), -- [cite: 313]

days\_of\_week weekday\_enum[] NULL, -- [cite: 313]

time\_of\_day TIME WITHOUT TIME ZONE NULL, -- [cite: 313]

language\_code CHAR(2) NULL, -- [cite: 313]

language\_notes TEXT NULL, -- [cite: 313]

location\_within\_site\_notes TEXT NULL, -- [cite: 313]

seasonal\_validity\_notes TEXT NULL, -- [cite: 313]

is\_pilgrim\_specific\_service BOOLEAN NOT NULL DEFAULT FALSE, -- [cite: 313]

service\_notes TEXT NULL, -- [cite: 313]

data\_last\_verified\_at TIMESTAMPTZ NULL, -- [cite: 313, 324]

created\_at TIMESTAMPTZ NOT NULL DEFAULT now(), -- [cite: 313]

created\_by\_profile\_id UUID NULL, -- [cite: 313]

updated\_at TIMESTAMPTZ NOT NULL DEFAULT now(), -- [cite: 313]

updated\_by\_profile\_id UUID NULL, -- [cite: 313]

CONSTRAINT fk\_attraction\_waypoint FOREIGN KEY(attraction\_waypoint\_id) REFERENCES public.attractions\_details(waypoint\_id) ON DELETE CASCADE, -- [cite: 324]

CONSTRAINT fk\_service\_type FOREIGN KEY(service\_type\_id) REFERENCES public.religious\_service\_types\_master(id) ON DELETE RESTRICT, -- [cite: 325]

CONSTRAINT fk\_language\_code FOREIGN KEY(language\_code) REFERENCES public.languages\_master(language\_code) ON DELETE SET NULL ON UPDATE CASCADE, -- [cite: 325]

CONSTRAINT fk\_created\_by\_profile FOREIGN KEY(created\_by\_profile\_id) REFERENCES public.profiles(id) ON DELETE SET NULL, -- [cite: 325]

CONSTRAINT fk\_updated\_by\_profile FOREIGN KEY(updated\_by\_profile\_id) REFERENCES public.profiles(id) ON DELETE SET NULL -- [cite: 326]

);

COMMENT ON TABLE public.religious\_service\_schedules IS 'Stores specific schedules for religious services at attractions. Child of attractions\_details. Version 1.3.1'; -- [cite: 327]

COMMENT ON COLUMN public.religious\_service\_schedules.id IS 'Unique identifier for this specific service schedule entry.';

COMMENT ON COLUMN public.religious\_service\_schedules.attraction\_waypoint\_id IS 'FK to attractions\_details.waypoint\_id, linking to the parent religious site.'; [cite: 328]

COMMENT ON COLUMN public.religious\_service\_schedules.service\_type\_id IS 'FK to religious\_service\_types\_master. Type of service (e.g., Mass, Vespers). Referenced master record must be is\_active=true.'; [cite: 329]

COMMENT ON COLUMN public.religious\_service\_schedules.schedule\_description\_text IS 'Human-readable description of when the service occurs. Primary reference language (English) text. (Translatable via public.translations)'; [cite: 330]

COMMENT ON COLUMN public.religious\_service\_schedules.days\_of\_week IS 'Array of specific days of the week this service occurs, using weekday\_enum.'; [cite: 331]

COMMENT ON COLUMN public.religious\_service\_schedules.time\_of\_day IS 'Specific start time if regular daily/weekly occurrence.'; [cite: 332]

COMMENT ON COLUMN public.religious\_service\_schedules.language\_code IS 'FK to languages\_master.language\_code. Primary language code (ISO 639-1) of the service. Referenced master record must be is\_active\_for\_platform=true.'; [cite: 333]

COMMENT ON COLUMN public.religious\_service\_schedules.language\_notes IS 'Additional notes about language use in the service. Primary reference language (English) text. (Translatable via public.translations)'; [cite: 334]

COMMENT ON COLUMN public.religious\_service\_schedules.location\_within\_site\_notes IS 'Specific location if the site has multiple chapels/altars. Primary reference language (English) text. (Translatable via public.translations)'; [cite: 336]

COMMENT ON COLUMN public.religious\_service\_schedules.seasonal\_validity\_notes IS 'Notes on seasonal variations in the schedule. Primary reference language (English) text. (Translatable via public.translations)'; [cite: 337]

COMMENT ON COLUMN public.religious\_service\_schedules.is\_pilgrim\_specific\_service IS 'Flags if this service is specifically aimed at or tailored for pilgrims.'; [cite: 338]

COMMENT ON COLUMN public.religious\_service\_schedules.service\_notes IS 'Other important notes for pilgrims. Primary reference language (English) text. (Translatable via public.translations)'; [cite: 339]

COMMENT ON COLUMN public.religious\_service\_schedules.data\_last\_verified\_at IS 'When this specific service schedule was last verified.'; [cite: 341]

COMMENT ON COLUMN public.religious\_service\_schedules.created\_at IS 'Timestamp of record creation.';

COMMENT ON COLUMN public.religious\_service\_schedules.created\_by\_profile\_id IS 'Profile ID of the user who created this record.'; [cite: 342]

COMMENT ON COLUMN public.religious\_service\_schedules.updated\_at IS 'Timestamp of last update (auto-updated by trigger).';

COMMENT ON COLUMN public.religious\_service\_schedules.updated\_by\_profile\_id IS 'Profile ID of the user who last updated this record.'; [cite: 343]

-- Triggers & Functions for religious\_service\_schedules

CREATE TRIGGER trigger\_religious\_service\_schedules\_set\_updated\_at

BEFORE UPDATE ON public.religious\_service\_schedules

FOR EACH ROW EXECUTE FUNCTION public.set\_current\_timestamp\_updated\_at(); -- [cite: 343]

COMMENT ON TRIGGER trigger\_religious\_service\_schedules\_set\_updated\_at ON public.religious\_service\_schedules IS 'Trigger to automatically update updated\_at timestamp on row modification.'; [cite: 344]

CREATE OR REPLACE FUNCTION public.cleanup\_religious\_service\_schedules\_translations()

RETURNS TRIGGER AS $$ BEGIN DELETE FROM public.translations WHERE table\_identifier = 'religious\_service\_schedules' AND row\_foreign\_key = OLD.id::TEXT; RETURN OLD; END; $$ LANGUAGE plpgsql SECURITY DEFINER;

CREATE TRIGGER trigger\_cleanup\_religious\_service\_schedules\_translations

AFTER DELETE ON public.religious\_service\_schedules

FOR EACH ROW EXECUTE FUNCTION public.cleanup\_religious\_service\_schedules\_translations();

COMMENT ON TRIGGER trigger\_cleanup\_religious\_service\_schedules\_translations ON public.religious\_service\_schedules IS 'Cleans up orphaned translations from public.translations when a religious\_service\_schedules record is deleted.';

CREATE OR REPLACE FUNCTION public.check\_religious\_service\_type\_active()

RETURNS TRIGGER AS $$ DECLARE is\_type\_active BOOLEAN; BEGIN IF NEW.service\_type\_id IS NOT NULL THEN SELECT rstm.is\_active INTO is\_type\_active FROM public.religious\_service\_types\_master rstm WHERE rstm.id = NEW.service\_type\_id; IF NOT is\_type\_active THEN RAISE EXCEPTION 'Cannot link religious service schedule to inactive service\_type\_id: %. Corresponding religious\_service\_types\_master record must be active.', NEW.service\_type\_id; END IF; END IF; RETURN NEW; END; $$ LANGUAGE plpgsql;

CREATE TRIGGER trigger\_check\_religious\_service\_type\_active

BEFORE INSERT OR UPDATE OF service\_type\_id ON public.religious\_service\_schedules

FOR EACH ROW EXECUTE FUNCTION public.check\_religious\_service\_type\_active();

COMMENT ON TRIGGER trigger\_check\_religious\_service\_type\_active ON public.religious\_service\_schedules IS 'Ensures the referenced service\_type\_id in religious\_service\_types\_master is active.';

CREATE OR REPLACE FUNCTION public.check\_religious\_service\_language\_active()

RETURNS TRIGGER AS $$ DECLARE is\_lang\_active BOOLEAN; BEGIN IF NEW.language\_code IS NOT NULL THEN SELECT lm.is\_active\_for\_platform INTO is\_lang\_active FROM public.languages\_master lm WHERE lm.language\_code = NEW.language\_code; IF lm.language\_code IS NULL OR NOT is\_lang\_active THEN RAISE EXCEPTION 'Cannot link religious service schedule to non-existent or inactive language\_code: %. Corresponding languages\_master record must exist and be active\_for\_platform.', NEW.language\_code; END IF; END IF; RETURN NEW; END; $$ LANGUAGE plpgsql;

CREATE TRIGGER trigger\_check\_religious\_service\_language\_active

BEFORE INSERT OR UPDATE OF language\_code ON public.religious\_service\_schedules

FOR EACH ROW EXECUTE FUNCTION public.check\_religious\_service\_language\_active();

COMMENT ON TRIGGER trigger\_check\_religious\_service\_language\_active ON public.religious\_service\_schedules IS 'Ensures the referenced language\_code in languages\_master exists and is active\_for\_platform.';

-- Indexes

CREATE INDEX idx\_religious\_service\_schedules\_attraction\_waypoint\_id ON public.religious\_service\_schedules(attraction\_waypoint\_id); -- [cite: 345]

CREATE INDEX idx\_religious\_service\_schedules\_service\_type\_id ON public.religious\_service\_schedules(service\_type\_id); -- [cite: 345]

CREATE INDEX idx\_religious\_service\_schedules\_days\_of\_week ON public.religious\_service\_schedules USING GIN (days\_of\_week) WHERE days\_of\_week IS NOT NULL; -- [cite: 346]

CREATE INDEX idx\_religious\_service\_schedules\_language\_code ON public.religious\_service\_schedules(language\_code) WHERE language\_code IS NOT NULL;

CREATE INDEX idx\_rss\_created\_by\_profile\_id ON public.religious\_service\_schedules(created\_by\_profile\_id) WHERE created\_by\_profile\_id IS NOT NULL;

CREATE INDEX idx\_rss\_updated\_by\_profile\_id ON public.religious\_service\_schedules(updated\_by\_profile\_id) WHERE updated\_by\_profile\_id IS NOT NULL;

-- RLS Policies for religious\_service\_types\_master

ALTER TABLE public.religious\_service\_types\_master ENABLE ROW LEVEL SECURITY;

CREATE POLICY "public\_read\_religious\_service\_types" ON public.religious\_service\_types\_master FOR SELECT USING (is\_active = true);

CREATE POLICY "manage\_religious\_service\_types\_for\_admins" ON public.religious\_service\_types\_master FOR ALL USING ((SELECT public.has\_role\_on\_profile(auth.uid(), 'platform\_admin'))) WITH CHECK ((SELECT public.has\_role\_on\_profile(auth.uid(), 'platform\_admin')));

-- RLS Policies for religious\_service\_schedules

ALTER TABLE public.religious\_service\_schedules ENABLE ROW LEVEL SECURITY;

CREATE POLICY "public\_read\_religious\_service\_schedules" ON public.religious\_service\_schedules

FOR SELECT USING (

EXISTS (

SELECT 1 FROM public.attractions\_details ad

JOIN public.waypoints w ON ad.waypoint\_id = w.id

JOIN public.content\_statuses\_master csm ON w.content\_visibility\_status\_id = csm.id

WHERE ad.waypoint\_id = religious\_service\_schedules.attraction\_waypoint\_id AND csm.is\_publicly\_visible = TRUE AND w.deleted\_at IS NULL

)

);

CREATE POLICY "manage\_religious\_service\_schedules\_for\_privileged\_users" ON public.religious\_service\_schedules

FOR ALL USING (

((SELECT public.has\_role\_on\_profile(auth.uid(), 'platform\_admin')) OR (SELECT public.has\_role\_on\_profile(auth.uid(), 'regional\_content\_manager'))) -- Updated role names

AND EXISTS (SELECT 1 FROM public.attractions\_details ad WHERE ad.waypoint\_id = religious\_service\_schedules.attraction\_waypoint\_id)

) WITH CHECK (

((SELECT public.has\_role\_on\_profile(auth.uid(), 'platform\_admin')) OR (SELECT public.has\_role\_on\_profile(auth.uid(), 'regional\_content\_manager'))) -- Updated role names

AND EXISTS (SELECT 1 FROM public.attractions\_details ad WHERE ad.waypoint\_id = religious\_service\_schedules.attraction\_waypoint\_id)

AND (TG\_OP = 'INSERT' OR (TG\_OP = 'UPDATE' AND OLD.attraction\_waypoint\_id = NEW.attraction\_waypoint\_id OR (SELECT public.has\_role\_on\_profile(auth.uid(), 'platform\_admin'))))

);

```

4\. JSON Schema Mirror

(Reflects the schema table in Section 2; does not include denormalized \*\_label\_en or \*\_name\_en columns)

JSON

```

{

"title": "religious\_service\_schedule",

"description": "Stores specific schedules for religious services at attractions. Child of attractions\_details. Version 1.3.1",

"type": "object",

"properties": {

"id": {

"type": "integer",

"format": "int64",

"description": "Unique identifier for this specific service schedule entry.",

"readOnly": true

},

"attraction\_waypoint\_id": {

"type": "integer",

"format": "int64",

"description": "FK to attractions\_details.waypoint\_id, linking to the parent religious site."

},

"service\_type\_id": {

"type": "integer",

"description": "FK to religious\_service\_types\_master. Type of service. Referenced master record must be is\_active=true."

},

"schedule\_description\_text": {

"type": "string",

"description": "Human-readable description of when the service occurs. Primary reference language (English) text. (Translatable via public.translations)"

},

"days\_of\_week": {

"type": ["array", "null"],

"items": {

"type": "string",

"enum": ["monday", "tuesday", "wednesday", "thursday", "friday", "saturday", "sunday"]

},

"description": "Array of specific days of the week this service occurs, using weekday\_enum."

},

"time\_of\_day": {

"type": ["string", "null"],

"format": "time",

"description": "Specific start time if regular daily/weekly occurrence."

},

"language\_code": {

"type": ["string", "null"],

"minLength": 2,

"maxLength": 2,

"description": "FK to languages\_master.language\_code. Primary language code (ISO 639-1) of the service. Referenced master record must be is\_active\_for\_platform=true."

},

"language\_notes": {

"type": ["string", "null"],

"description": "Additional notes about language use in the service. Primary reference language (English) text. (Translatable via public.translations)"

},

"location\_within\_site\_notes": {

"type": ["string", "null"],

"description": "Specific location if the site has multiple chapels/altars. Primary reference language (English) text. (Translatable via public.translations)"

},

"seasonal\_validity\_notes": {

"type": ["string", "null"],

"description": "Notes on seasonal variations in the schedule. Primary reference language (English) text. (Translatable via public.translations)"

},

"is\_pilgrim\_specific\_service": {

"type": "boolean",

"default": false,

"description": "Flags if this service is specifically aimed at or tailored for pilgrims."

},

"service\_notes": {

"type": ["string", "null"],

"description": "Other important notes for pilgrims. Primary reference language (English) text. (Translatable via public.translations)"

},

"data\_last\_verified\_at": {

"type": ["string", "null"],

"format": "date-time",

"description": "When this specific service schedule was last verified."

},

"created\_at": {

"type": "string",

"format": "date-time",

"description": "Timestamp of record creation.",

"readOnly": true

},

"created\_by\_profile\_id": {

"type": ["string", "null"],

"format": "uuid",

"description": "Profile ID of the user who created this record."

},

"updated\_at": {

"type": "string",

"format": "date-time",

"description": "Timestamp of last update.",

"readOnly": true

},

"updated\_by\_profile\_id": {

"type": ["string", "null"],

"format": "uuid",

"description": "Profile ID of the user who last updated this record."

}

},

"required": [

"attraction\_waypoint\_id",

"service\_type\_id",

"schedule\_description\_text",

"is\_pilgrim\_specific\_service",

"created\_at",

"updated\_at"

]

}

```

5\. Relationships & Integrity

- Primary Key: `id` (`BIGINT`)

- Foreign Keys:

- `attraction\_waypoint\_id` REFERENCES `public.attractions\_details(waypoint\_id)` ON DELETE CASCADE.

- `service\_type\_id` REFERENCES `public.religious\_service\_types\_master(id)` ON DELETE RESTRICT.

- Integrity constraint: Referenced `religious\_service\_types\_master` record must have `is\_active = true` (enforced by `trigger\_check\_religious\_service\_type\_active`).

- `language\_code` REFERENCES `public.languages\_master(language\_code)` ON DELETE SET NULL ON UPDATE CASCADE.

- Integrity constraint: Referenced `languages\_master` record must have `is\_active\_for\_platform = true` (enforced by `trigger\_check\_religious\_service\_language\_active`).

- `created\_by\_profile\_id` REFERENCES `public.profiles(id)` ON DELETE SET NULL.

- `updated\_by\_profile\_id` REFERENCES `public.profiles(id)` ON DELETE SET NULL.

- ENUM Type: `public.weekday\_enum` is used for the `days\_of\_week` array column, providing efficient storage and validation for weekday values.

- Master Table: `public.religious\_service\_types\_master` (Version 1.1) defines the types of services and includes an `is\_active` flag. `public.languages\_master` (Version 2.1) defines supported languages and their active status.

6\. Multilingual Strategy

- Directly Translatable Fields (Primary reference language: English, translated via `public.translations`):

- `schedule\_description\_text`

- `language\_notes`

- `location\_within\_site\_notes`

- `seasonal\_validity\_notes`

- `service\_notes`

- Indirectly Translatable Fields (via `label`/`name` fields in master tables, fetched by views/application logic):

- `service\_type\_id` (links to `religious\_service\_types\_master.label`)

- `language\_code` (links to `languages\_master.display\_name\_en` or `languages\_master.display\_name\_native` for its full name)

- Orphan Cleanup: The `trigger\_cleanup\_religious\_service\_schedules\_translations` (`AFTER DELETE` on `religious\_service\_schedules`) removes related entries from `public.translations`. Referenced master tables (`religious\_service\_types\_master`, `languages\_master`) have their own orphan cleanup mechanisms.

7\. Role-Based Workflow & RLS Notes

- Key Fields for Workflow: `data\_last\_verified\_at` helps content managers track the freshness of schedule information. Audit columns (`created\_by\_profile\_id`, `updated\_by\_profile\_id`) provide a history of record modifications.

- RLS Policies:

- Row-Level Security is enabled on `religious\_service\_schedules` and its master table `religious\_service\_types\_master`.

- Public users have `SELECT` access to service schedules only if the parent `attractions\_details` record (and subsequently its parent `waypoints` record) is published and not deleted (checked via `waypoints.content\_visibility\_status\_id` and `waypoints.deleted\_at`).

- Privileged users (e.g., `platform\_admin`, `regional\_content\_manager`) have `ALL` permissions (CRUD) on schedules linked to attractions they are permitted to manage. Role checks use the `public.has\_role\_on\_profile` helper function.

- A `WITH CHECK` condition prevents non-`platform\_admin` users from re-parenting `attraction\_waypoint\_id` on `UPDATE`.

8\. ENUM vs Lookup Discussion

- `religious\_service\_types\_master`: This table (Version 1.1) correctly promotes an original `religious\_service\_type\_enum` concept to a full lookup table. This allows for richer data including translatable labels, descriptions, optional icons, logical sorting, an `is\_active` flag, and audit columns, offering more flexibility and maintainability.

- `weekday\_enum`: This is retained as a PostgreSQL ENUM type for the `days\_of\_week` array column. Weekdays represent a universally understood, small, and stable set of values where direct ENUM use is efficient. Translations of weekday names (e.g., "Monday" to "Lunedì") are typically handled by client-side internationalization libraries.

9\. UI/UX Enablement

- Service Type Display: `service\_type\_id` (via `religious\_service\_types\_master`) allows the UI to display the service type using its translatable `label` and potentially an `icon\_identifier` from the master table.

- Schedule Information: `schedule\_description\_text` serves as the primary display field for detailed schedule information. The structured `days\_of\_week` and `time\_of\_day` fields allow for more organized display and can be used for filtering (e.g., "Show services on Sunday").

- Language Indication: `language\_code` (via `languages\_master`) enables the UI to display the language of the service, using the translated name of the language (e.g., "Italiano", "English") and potentially a flag icon from `languages\_master.icon\_identifier`. `language\_notes` provides additional context if needed.

- Pilgrim-Specific Services: The `is\_pilgrim\_specific\_service` flag can be used by the UI to highlight or filter services that are particularly relevant or tailored for pilgrims.

- Contextual Notes: `location\_within\_site\_notes`, `seasonal\_validity\_notes`, and `service\_notes` provide valuable additional information to pilgrims, enhancing their planning capabilities.

10\. Key Considerations & Definitions

- Data Granularity: Each row in `religious\_service\_schedules` represents one specific scheduled service or a distinct recurring pattern. For services occurring at multiple distinct times on the same day(s) that require individual filtering or display, multiple entries may be preferable over a single descriptive entry.

- Clarity of `schedule\_description\_text`: This field remains crucial for conveying complex or irregular schedules that don't fit neatly into the structured `days\_of\_week` and `time\_of\_day` fields alone (e.g., "Every 1st Friday of the month at 5 PM," "Special holiday schedule: see noticeboard").

- Verification of Schedules: The `data\_last\_verified\_at` field is important as service times can change frequently. A regular review process by content managers is recommended to maintain the accuracy of the information for pilgrims.

11\. Scalability & Future-Proofing

- Child Table Scalability: The scalability of this table is primarily linked to the number of religious attractions offering services and the average number of distinct service schedules per attraction. Performance is maintained through proper indexing on foreign keys (`attraction\_waypoint\_id`, `service\_type\_id`, `language\_code`) and commonly filtered fields like `days\_of\_week`.

- Flexibility of Service Types: The use of `religious\_service\_types\_master` allows for easy addition or modification of service classifications in the future without altering this table's schema.

- Auditability: Standard audit columns (`created\_at`, `created\_by\_profile\_id`, `updated\_at`, `updated\_by\_profile\_id`) provide a clear history of changes to individual service schedule entries.

12\. Next-Action Checklist

- 🔴 Verify Prerequisite Master Table Specs are V2 Compliant:

- Confirm `public.religious\_service\_types\_master` (Version 1.1) is implemented with `is\_active`, `label`, full audit columns, and relevant triggers (updated\_at, orphan translation cleanup). Seed data should be populated.

- Confirm `public.languages\_master` (Version 2.1 from global spec) is implemented with `is\_active\_for\_platform` (or equivalent active flag) and `display\_name\_en`.

- Confirm `public.attractions\_details` (Version 1.3.1) is implemented.

- 🔴 Implement/Update `religious\_service\_schedules` Table: Execute the DDL for Version 1.3.1 (ensuring no `\_en` denormalized columns).

- 🔴 Implement/Verify Triggers on `religious\_service\_schedules`:

- `trigger\_religious\_service\_schedules\_set\_updated\_at` (for `updated\_at`).

- `trigger\_cleanup\_religious\_service\_schedules\_translations` (for orphan translation cleanup).

- `trigger\_check\_religious\_service\_type\_active` (for `service\_type\_id`, ensuring referenced master is active).

- `trigger\_check\_religious\_service\_language\_active` (for `language\_code`, ensuring referenced master is active).

- 🟠 Data Entry Strategy for Schedules: Define clear guidelines for content managers on how to best utilize `schedule\_description\_text` alongside `days\_of\_week` and `time\_of\_day` for clarity and filterability, especially for complex or irregular schedules.

- 🟠 RLS Helper Functions: Ensure `public.has\_role\_on\_profile(UUID, TEXT)` or equivalent helper functions used in RLS policies are correctly defined, secure, and tested.

- 🟢 RLS Policies: Thoroughly test all implemented RLS policies for `religious\_service\_schedules` and `religious\_service\_types\_master`.

- 🟢 Initial Population & Translation Entries: Plan for data entry for known religious sites' service schedules into `religious\_service\_schedules`. Prepare initial English entries for all translatable fields in `public.translations`.

- 🟢 Seed Data for `religious\_service\_types\_master`: Ensure seed data like ('mass', 'Mass'), ('vespers', 'Vespers') etc. is populated, including `created\_by\_profile\_id`.

- 🟢 Data Migration (if applicable): If `religious\_service\_schedules` already contains data from a previous version, ensure schema changes are compatible or a migration script is prepared.