## ApiClient QNetworkAccessManager

- \* manager + ApiClient(QObject
- \*parent=nullptr)
  + void GetShapes()
- + void GetShapes()
  + void PostShapes(std
- ::string json)
- + void GetRenderArea()

+ void DeleteShapesAll()

- + void PostRenderArea (std::string json)
- + void DeleteRenderAreaAll()
- + void GetUsers()
  + void PostUsers(std
- ::string json)
- + void DeleteUsersAll()+ void GetTestimonials()
- + void PostTestimonials (std::string json)
- + void DeleteTestimonialsAll()
- void AnalyzeGetReply()void AnalyzePostReply()
- void AnalyzeDeleteReply()
- \*parent=nullptr)

  \* void GetShapes()

ApiClient(QObject

- \* void PostShapes(std ::string json)
- \* void DeleteShapesAll()\* void GetRenderArea()
- \* void PostRenderArea (std::string json)
- \* void DeleteRenderAreaAll()\* void GetUsers()
- void PostUsers(std ::string json)
- \* void GetTestimonials()\* void PostTestimonials

void DeleteUsersAll()

- (std::string json)
  void DeleteTestimonialsAll()
- void GoodGetReply(const QString &json)
- void BadGetReply(const
- QString &error)

  void GoodPostReply()
- void BadPostReply(const QString &error)
- void GoodDeleteReply()
- void BadDeleteReply (const QString &error)
- \* void AnalyzeGetReply()\* void AnalyzePostReply()
- void AnalyzeDeleteReply()

**TestimonialManager** 

+ void addTestimonial

() const

-client

## Parser

- + Parser()=default+ ~Parser()=default
- + Parser(const Parser &)=delete
- + Parser & operator= (const Parser &)=delete+ Parser(Parser &&)
- =delete + Parser & operator=
  - (Parser &&)=delete
- + void PrintShapeVector (const alpha::vector
- + alpha::vector< Shape</li>\* > JsonToShapes(const std::string &json)

< Shape \* > &shapes)

- + std::string ShapesToJson (const alpha::vector< Shape \* > &shapes)
- + alpha::vector< UserAccount</li>\* > JsonToUsers(const std::string &json)
- + std::string UsersToJson (const alpha::vector< UserAccount \* > &users)
- + static QVector< Testimonial</li>
   > JsonToTestimonials(const std::string &json)
- + static std::string
  TestimonialsToJson
  (const QVector< Testimonial
  > &testimonials)
- MorphicShape ParseJsonObject (const std::string json, size\_t &index)
   void UpdateAccumulator
  - const std::string &value, MorphicShape &tempShape) Shape \* BuildShape (MorphicShape tempShape)

(const std::string &key,

- void SkipWhitespace (const std::string &json, size\_t &index)
- (const std::string &json, size\_t &index)std::string ExtractValue

(const std::string &json,

std::string ExtractKey

- size\_t &index)std::string ExtractInteger (const std::string &json, size\_t &index)
- std::string ExtractArray (const std::string &json, size\_t &index)
   std::string ExtractLiteral
- (const std::string &json, size\_t &index)alpha::vector< int</li>

> StringToVector(const

and 12 more... static void UpdateUserAccumulator (const std::string &key, const

std::string &value)

-parse

std::string &value, RawUser &acc)

)

(const Testimonial &testimonial)+ QVector< Testimonial</li>

+ bool hasUserGivenTestimonial (const QString &username) const

> getSatisfactoryTestimonials

 + void setDoNotShowAgain (const QString &username, bool value)
 + bool getDoNotShowAgain

(const QString &username)

- + void startTrackingTime()+ void stopTrackingTime()+ static TestimonialManager
- & getInstance()
   TestimonialManager()
- void saveTestimonials()void checkTimeAndPrompt()

void onGoodGetResponse

~TestimonialManager()void loadTestimonials()

- (const QString &json)void onBadGetResponse (const QString &error)
- void onGoodPostResponse()void onBadPostResponse (const QString &error)
- QVector< Testimonial</li>m\_testimonialsQTimer \* m\_trackingTimer
- QHash< QString, bool
  > m\_doNotShowAgain
- > m\_userTimeTracking

  ' static const int INITIAL

  \_PROMPT\_TIME

QHash< QString, int

static const int REPEAT \_PROMPT\_TIME

static TestimonialManager

\* void addTestimonial (const Testimonial &testimonial)

& getInstance()

- \* QVector< Testimonial > getSatisfactoryTestimonials () const
- bool hasUserGivenTestimonial (const QString &username) const
   void setDoNotShowAgain
- (const QString &username, bool value)

bool getDoNotShowAgain

- const QString &username)
- \* void stopTrackingTime()\* void shouldPromptForTestimonial()

\* void startTrackingTime()

- void onGoodGetResponse (const QString &json)void onBadGetResponse
- (const QString &error)
  void onGoodPostResponse()
- \* void onBadPostResponse
- (const QString &error)

  \* TestimonialManager()
- \* ~TestimonialManager()\* void loadTestimonials()
- \* void saveTestimonials()\* void checkTimeAndPrompt()