

# Software Engineering Assignment 1

Zubair Abid

On initialising the **Args** object, with a schema and an argument list, we: - Create: - **marshalers**, a map from characters to marshalers - **argsFound**, a set of all characters found so far - Parse: - the schema, using **parseSchema**: - the schema (which is a comma-separated list of **char+indicator** combinations) is split by commas, and: - for each *comma-separated element* of non-zero length, we pass it to **parseSchemaElement** where each element is split into: - an **elementId** - which has to be a single character to be valid (the validator, **validSchemaElementId** just checks if the character is a letter or not), - and the rest of the string, which has to be a specific character combination. This combination is used to decide which **ArgumentMarshaler** will be associated with the **elementId** - So, at the end of this you have a new entry to the **marshalers** map: the **elementId** and the associated marshaler, both extracted from **element** - Now, **marshalers** is a map for all comma-separated elements of the **schema** - the argument list, using **parseArgumentStrings**: - going over the list, it passes all elements starting with '-' to **parseArgumentCharacters**: - a wrapper to send each character into **parseArgumentCharacter**, where: - an **ArgumentMarshaler** is gotten from the **marshalers** map for the character.

**Schema**

**Args**

**Marshalers**