

PROJECT 1 BNF

```
<program> ::= <start> <prehead_comments_opt> <head_opt> <posthead_comments_opt>  
<body_opt> <end>
```

```
<start> ::= "#HAI"
```

```
<end> ::= "#KTHXBYE"
```

```
<prehead_comments_opt> ::= <comment_list> | ε
```

```
<posthead_comments_opt> ::= <comment_list> | ε
```

```
<comment_list> ::= <comment> | <comment> <comment_list>
```



```
<head_opt> ::= <head> | ε
```

```
<head> ::= "#MAEK" "HEAD" <title_opt> "#OIC"
```

```
<title_opt> ::= <title> | ε
```

```
<title> ::= "#GIMMEH" "TITLE" <content> "#MKAY"
```

```
<body_opt> ::= <element_list> | ε
```

```
<element_list> ::= <element> | <element> <element_list>
```



```
<element> ::= <comment>
```

```
| <paragraph>
```

```
| <list>
```

```
| <bold>
```

```
| <italics>
```

```
| <sound>
```

```
| <video>
```

| <newline>

<comment> ::= "#OBTW" <content> "#TLDR"

<paragraph> ::= "#MAEK" "PARAGRAF" <paragraph_prefix_opt>
<paragraph_items_opt> "#OIC"

<paragraph_prefix_opt> ::= <variable_def_opt>

<variable_def_opt> ::= <variable_def> | ε

<paragraph_items_opt> ::= <paragraph_items> | ε

<paragraph_items> ::= <paragraph_item> | <paragraph_item> <paragraph_items>

<paragraph_item> ::= <comment>

| <bold>

| <italics>

| <list>

| <sound>

| <video>

| <newline>

| <variable_use>

| <content>

<bold> ::= "#GIMMEH" "BOLD" <content> "#MKAY"

<italics> ::= "#GIMMEH" "ITALICS" <content> "#MKAY"

<list> ::= "#MAEK" "LIST" <list_prefix_opt> <list_items> "#OIC"

<list_prefix_opt> ::= <variable_def_opt>

```
<list_items> ::= <list_item> | <list_item> <list_items>
<list_item> ::= "#GIMMEH" "ITEM" <item_prefix_opt> <item_pieces_opt> "#MKAY"
<item_prefix_opt> ::= <variable_def_opt>
<item_pieces_opt> ::= <item_pieces> | ε
<item_pieces> ::= <item_piece> | <item_piece> <item_pieces>
```

```
<item_piece> ::= <comment>
```

- |
- | <i>
- | <newline>
- | <variable_use>
- | <content>

```
<newline> ::= "#GIMMEH" "NEWLINE"
<sound> ::= "#GIMMEH" "SOUNDZ" <content> "#MKAY"
<video> ::= "#GIMMEH" "VIDZ" <content> "#MKAY"
```

```
<variable_def> ::= "#I" "HAZ" <var_name> "#IT" "IZ" <content> "#MKAY"
<variable_use> ::= "#LEMME" "SEE" <var_name> "#MKAY"
```

```
<var_name> ::= <word>
<word> ::= <letter> | <letter> <word>
```

```
<content> ::= <word_or_text> | <word_or_text> <content>
<word_or_text> ::= <word> | <text>
```

```
<text> ::= <char> | <char> <text>

<char> ::= <letter> | <digit> | <punctuation_no_ws>

<punctuation_no_ws> ::= "," | "." | ":" | "?" | "!" | "%" | "/" | ""

<letter> ::= "A" | "B" | "C" | "D" | "E" | "F" | "G" | "H" | "I" | "J" | "K" | "L" | "M"
          | "N" | "O" | "P" | "Q" | "R" | "S" | "T" | "U" | "V" | "W" | "X" | "Y" | "Z"
          | "a" | "b" | "c" | "d" | "e" | "f" | "g" | "h" | "i" | "j" | "k" | "l" | "m"
          | "n" | "o" | "p" | "q" | "r" | "s" | "t" | "u" | "v" | "w" | "x" | "y" | "z"

<digit> ::= "0" | "1" | "2" | "3" | "4" | "5" | "6" | "7" | "8" | "9"
```