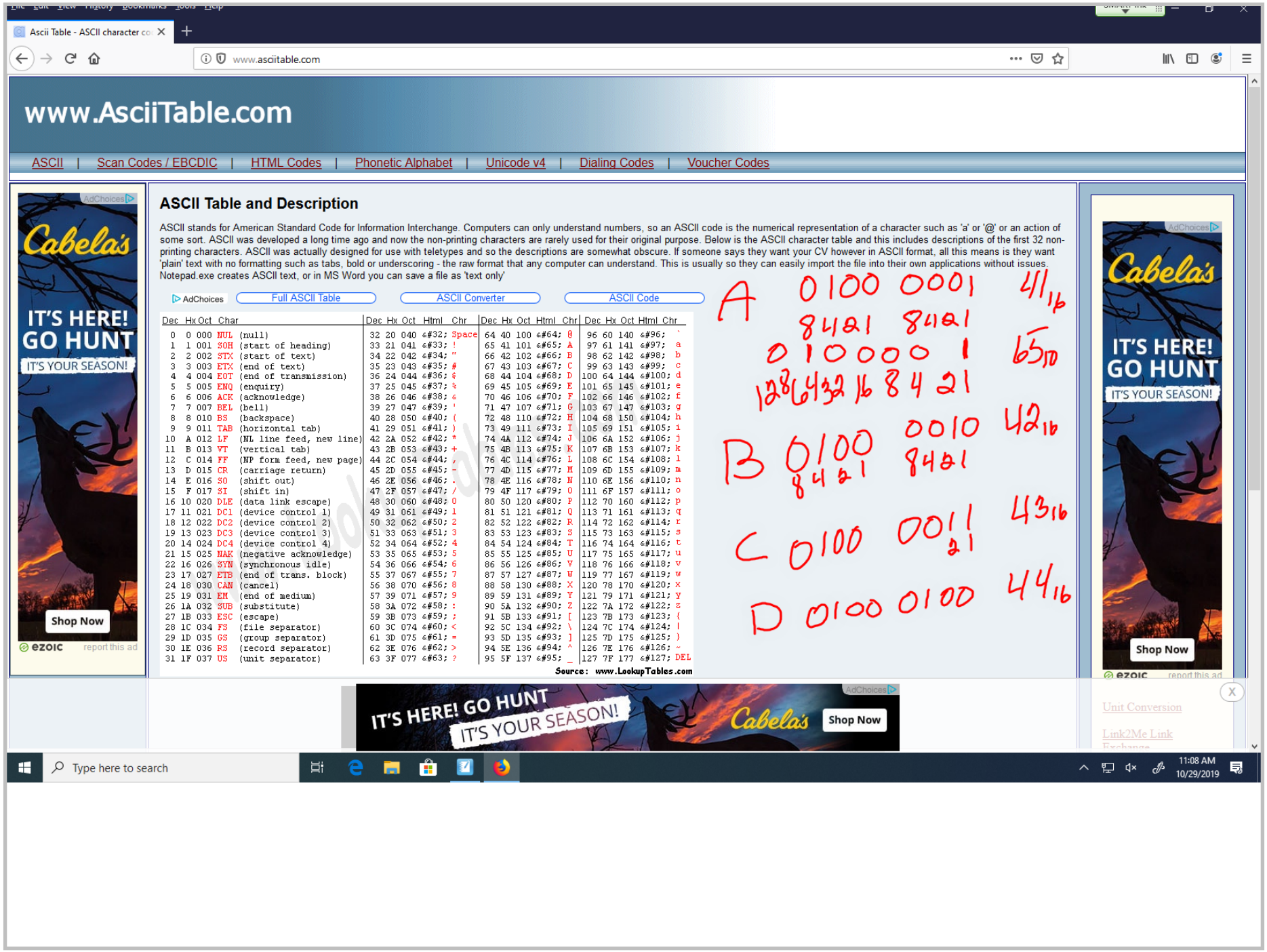
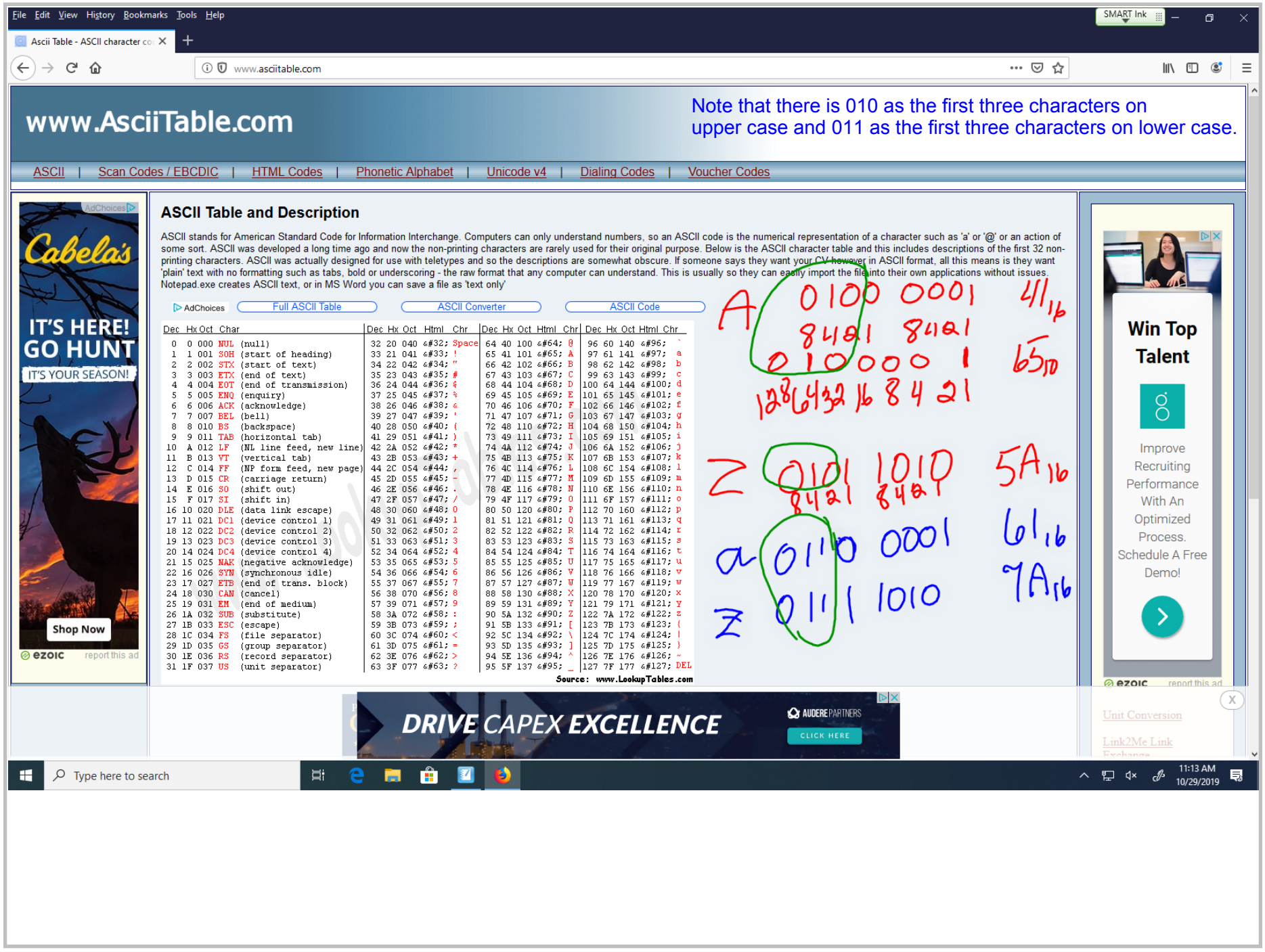
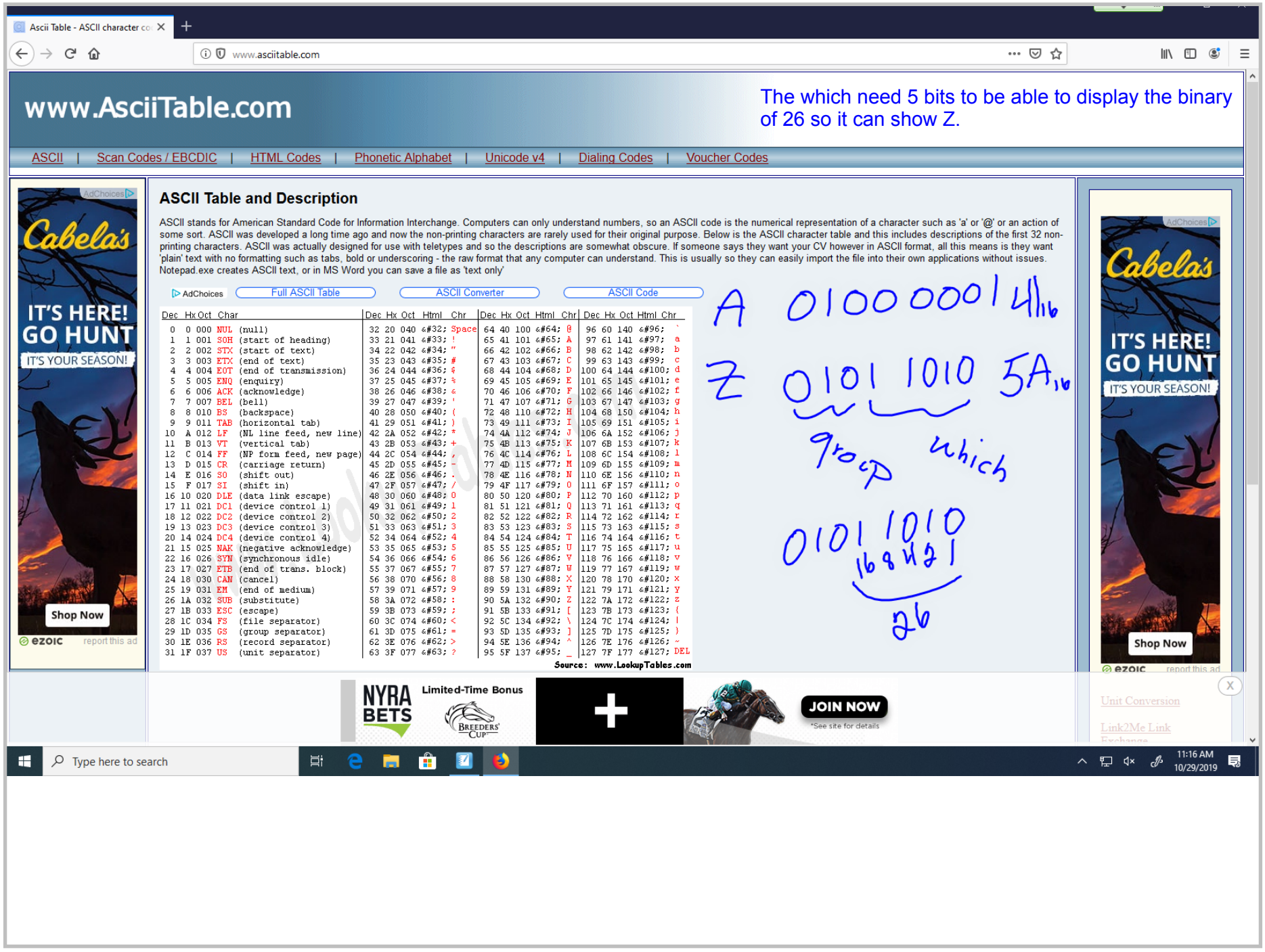


Dec	Hx	Oct	Char	Dec	Hx	Oct	Html	Chr	Dec	Hx	Oct	Html	Chr	Dec	Hx	Oct	Html	Chr
0	0	000	NUL (null)	32	20	040		Space	64	40	100	@	@	96	60	140	`	`
1	1	001	SOH (start of heading)	33	21	041	!	!	65	41	101	A	A	97	61	141	a	a
2	2	002	STX (start of text)	34	22	042	"	"	66	42	102	B	B	98	62	142	b	b
3	3	003	ETX (end of text)	35	23	043	#	#	67	43	103	C	C	99	63	143	c	c
4	4	004	EOT (end of transmission)	36	24	044	$	$	68	44	104	D	D	100	64	144	d	d
5	5	005	ENQ (enquiry)	37	25	045	%	%	69	45	105	E	E	101	65	145	e	e
6	6	006	ACK (acknowledge)	38	26	046	&	&	70	46	106	F	F	102	66	146	f	f
7	7	007	BEL (bell)	39	27	047	'	'	71	47	107	G	G	103	67	147	g	g
8	8	010	BS (backspace)	40	28	050	(	(	72	48	110	H	H	104	68	150	h	h
9	9	011	TAB (horizontal tab)	41	29	051	)	)	73	49	111	I	I	105	69	151	i	i
10	A	012	LF (NL line feed, new line)	42	2A	052	*	*	74	4A	112	J	J	106	6A	152	j	j
11	B	013	VT (vertical tab)	43	2B	053	+	+	75	4B	113	K	K	107	6B	153	k	k
12	C	014	FF (NP form feed, new page)	44	2C	054	,	,	76	4C	114	L	L	108	6C	154	l	l
13	D	015	CR (carriage return)	45	2D	055	-	-	77	4D	115	M	M	109	6D	155	m	m
14	E	016	SO (shift out)	46	2E	056	.	.	78	4E	116	N	N	110	6E	156	n	n
15	F	017	SI (shift in)	47	2F	057	/	/	79	4F	117	O	O	111	6F	157	o	o
16	10	020	DLE (data link escape)	48	30	060	0	0	80	50	120	P	P	112	70	160	p	p
17	11	021	DC1 (device control 1)	49	31	061	1	1	81	51	121	Q	Q	113	71	161	q	q
18	12	022	DC2 (device control 2)	50	32	062	2	2	82	52	122	R	R	114	72	162	r	r
19	13	023	DC3 (device control 3)	51	33	063	3	3	83	53	123	S	S	115	73	163	s	s
20	14	024	DC4 (device control 4)	52	34	064	4	4	84	54	124	T	T	116	74	164	t	t
21	15	025	NAK (negative acknowledge)	53	35	065	5	5	85	55	125	U	U	117	75	165	u	u
22	16	026	SYN (synchronous idle)	54	36	066	6	6	86	56	126	V	V	118	76	166	v	v
23	17	027	ETB (end of trans. block)	55	37	067	7	7	87	57	127	W	W	119	77	167	w	w
24	18	030	CAN (cancel)	56	38	070	8	8	88	58	130	X	X	120	78	170	x	x
25	19	031	EM (end of medium)	57	39	071	9	9	89	59	131	Y	Y	121	79	171	y	y
26	1A	032	SUB (substitute)	58	3A	072	:	:	90	5A	132	Z	Z	122	7A	172	z	z
27	1B	033	ESC (escape)	59	3B	073	;	;	91	5B	133	[	[	123	7B	173	{	{
28	1C	034	FS (file separator)	60	3C	074	<	<	92	5C	134	\	\	124	7C	174			|
29	1D	035	GS (group separator)	61	3D	075	=	=	93	5D	135	]	]	125	7D	175	}	}
30	1E	036	RS (record separator)	62	3E	076	>	>	94	5E	136	^	^	126	7E	176	~	~
31	1F	037	US (unit separator)	63	3F	077	?	?	95	5F	137	_	_	127	7F	177	&#127;	DEL


File Edit View History Bookmarks Tools Help
SMART Ink
Ascii Table - ASCII character co
www.asciitable.com
www.AsciiTable.com
Note that there is 010 as the first three characters on upper case and 011 as the first three characters on lower case.
ASCII | Scan Codes / EBCDIC | HTML Codes | Phonetic Alphabet | Unicode v4 | Dialing Codes | Voucher Codes
ASCII Table and Description
ASCII stands for American Standard Code for Information Interchange. Computers can only understand numbers, so an ASCII code is the numerical representation of a character such as 'a' or '@' or an action of some sort. ASCII was developed a long time ago and now the non-printing characters are rarely used for their original purpose. Below is the ASCII character table and this includes descriptions of the first 32 non-printing characters. ASCII was actually designed for use with teletypes and so the descriptions are somewhat obscure. If someone says they want your CV however in ASCII format, all this means is they want 'plain' text with no formatting such as tabs, bold or underscoring - the raw format that any computer can understand. This is usually so they can easily import the file into their own applications without issues. Notepad.exe creates ASCII text, or in MS Word you can save a file as 'text only'
AdChoices
Full ASCII Table
ASCII Converter
ASCII Code
Dec Hx Oct Char | Dec Hx Oct Html Chr | Dec Hx Oct Html Chr | Dec Hx Oct Html Chr
0 0 000 NUL (null) | 32 20 040   Space | 64 40 100 @ @ | 96 60 140 ` `
1 1 001 SOH (start of heading) | 33 21 041 ! ! | 65 41 101 A A | 97 61 141 a a
2 2 002 STX (start of text) | 34 22 042 " " | 66 42 102 B B | 98 62 142 b b
3 3 003 ETX (end of text) | 35 23 043 # # | 67 43 103 C C | 99 63 143 c c
4 4 004 EOT (end of transmission) | 36 24 044 $ $ | 68 44 104 D D | 100 64 144 d d
5 5 005 ENQ (enquiry) | 37 25 045 % % | 69 45 105 E E | 101 65 145 e e
6 6 006 ACK (acknowledge) | 38 26 046 & & | 70 46 106 F F | 102 66 146 f f
7 7 007 BEL (bell) | 39 27 047 ' ' | 71 47 107 G G | 103 67 147 g g
8 8 010 BS (backspace) | 40 28 050 ((| 72 48 110 H H | 104 68 150 h h
9 9 011 TAB (horizontal tab) | 41 29 051)) | 73 49 111 I I | 105 69 151 i i
10 A 012 LF (NL line feed, new line) | 42 2A 052 * * | 74 4A 112 J J | 106 6A 152 j j
11 B 013 VT (vertical tab) | 43 2B 053 + + | 75 4B 113 K K | 107 6B 153 k k
12 C 014 FF (NP form feed, new page) | 44 2C 054 , , | 76 4C 114 L L | 108 6C 154 l l
13 D 015 CR (carriage return) | 45 2D 055 - - | 77 4D 115 M M | 109 6D 155 m m
14 E 016 SO (shift out) | 46 2E 056 . . | 78 4E 116 N N | 110 6E 156 n n
15 F 017 SI (shift in) | 47 2F 057 / / | 79 4F 117 O O | 111 6F 157 o o
16 10 020 DLE (data link escape) | 48 30 060 0 0 | 80 50 120 P P | 112 70 160 p p
17 11 021 DC1 (device control 1) | 49 31 061 1 1 | 81 51 121 Q Q | 113 71 161 q q
18 12 022 DC2 (device control 2) | 50 32 062 2 2 | 82 52 122 R R | 114 72 162 r r
19 13 023 DC3 (device control 3) | 51 33 063 3 3 | 83 53 123 S S | 115 73 163 s s
20 14 024 DC4 (device control 4) | 52 34 064 4 4 | 84 54 124 T T | 116 74 164 t t
21 15 025 NAK (negative acknowledge) | 53 35 065 5 5 | 85 55 125 U U | 117 75 165 u u
22 16 026 SYN (synchronous idle) | 54 36 066 6 6 | 86 56 126 V V | 118 76 166 v v
23 17 027 ETB (end of trans. block) | 55 37 067 7 7 | 87 57 127 W W | 119 77 167 w w
24 18 030 CAN (cancel) | 56 38 070 8 8 | 88 58 130 X X | 120 78 170 x x
25 19 031 EM (end of medium) | 57 39 071 9 9 | 89 59 131 Y Y | 121 79 171 y y
26 1A 032 SUB (substitute) | 58 3A 072 : : | 90 5A 132 Z Z | 122 7A 172 z z
27 1B 033 ESC (escape) | 59 3B 073 ; ; | 91 5B 133 [[| 123 7B 173 { {
28 1C 034 FS (file separator) | 60 3C 074 < < | 92 5C 134 \ \ | 124 7C 174 | |
29 1D 035 GS (group separator) | 61 3D 075 = = | 93 5D 135]] | 125 7D 175 } }
30 1E 036 RS (record separator) | 62 3E 076 > > | 94 5E 136 ^ ^ | 126 7E 176 ~ ~
31 1F 037 US (unit separator) | 63 3F 077 ? ? | 95 5F 137 _ _ | 127 7F 177 &#127; DEL
Source: www.LookupTables.com
A 0100 0001 41₁₆ 64+1 64+1 0+0+0+0+0+0+1 65₁₀ 128 64 32 16 8 4 2 1
Z 0101 1010 5A₁₆ 8+2+1 8+2
a 0110 0001 61₁₆
z 0111 1010 7A₁₆
AdChoices
Cabela's
IT'S HERE! GO HUNT
IT'S YOUR SEASON!
Shop Now
ezoic report this ad
Win Top Talent
Improve Recruiting Performance With An Optimized Process. Schedule A Free Demo!
ezoic report this ad
DRIVE CAPEX EXCELLENCE
AUDERE PARTNERS
CLICK HERE
Unit Conversion
Link2Me Link
Type here to search
11:13 AM
10/29/2019


Ascii Table - ASCII character co
www.asciitable.com
www.AsciiTable.com
The which need 5 bits to be able to display the binary of 26 so it can show Z.
ASCII | Scan Codes / EBCDIC | HTML Codes | Phonetic Alphabet | Unicode v4 | Dialing Codes | Voucher Codes
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5 5 005 ENQ (enquiry) | 37 25 045 % % | 69 45 105 E E | 101 65 145 e e
6 6 006 ACK (acknowledge) | 38 26 046 & & | 70 46 106 F F | 102 66 146 f f
7 7 007 BEL (bell) | 39 27 047 ' ' | 71 47 107 G G | 103 67 147 g g
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10 A 012 LF (NL line feed, new line) | 42 2A 052 * * | 74 4A 112 J J | 106 6A 152 j j
11 B 013 VT (vertical tab) | 43 2B 053 + + | 75 4B 113 K K | 107 6B 153 k k
12 C 014 FF (NP form feed, new page) | 44 2C 054 , , | 76 4C 114 L L | 108 6C 154 l l
13 D 015 CR (carriage return) | 45 2D 055 - - | 77 4D 115 M M | 109 6D 155 m m
14 E 016 SO (shift out) | 46 2E 056 . . | 78 4E 116 N N | 110 6E 156 n n
15 F 017 SI (shift in) | 47 2F 057 / / | 79 4F 117 O O | 111 6F 157 o o
16 10 020 DLE (data link escape) | 48 30 060 0 0 | 80 50 120 P P | 112 70 160 p p
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21 15 025 NAK (negative acknowledge) | 53 35 065 5 5 | 85 55 125 U U | 117 75 165 u u
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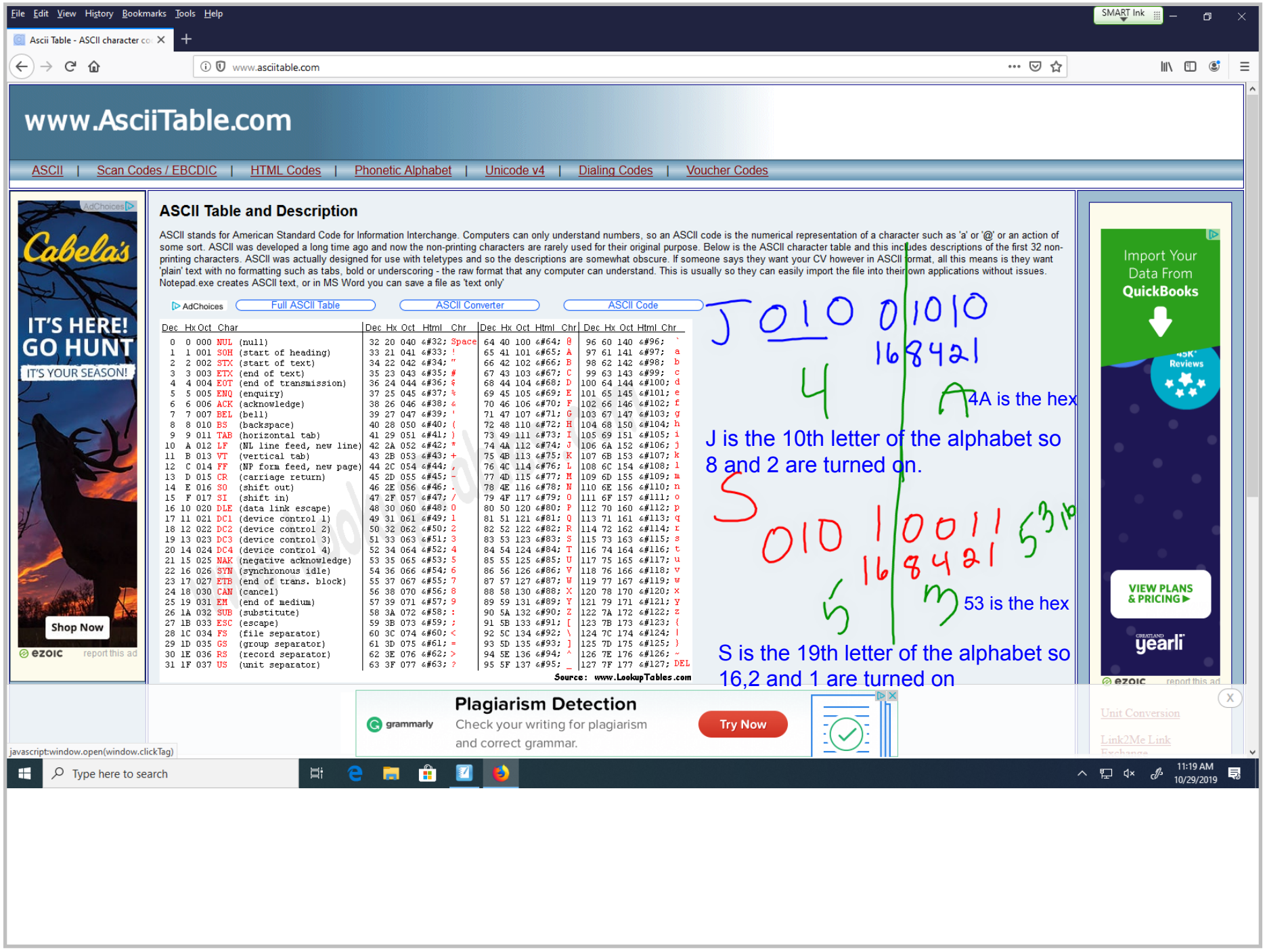
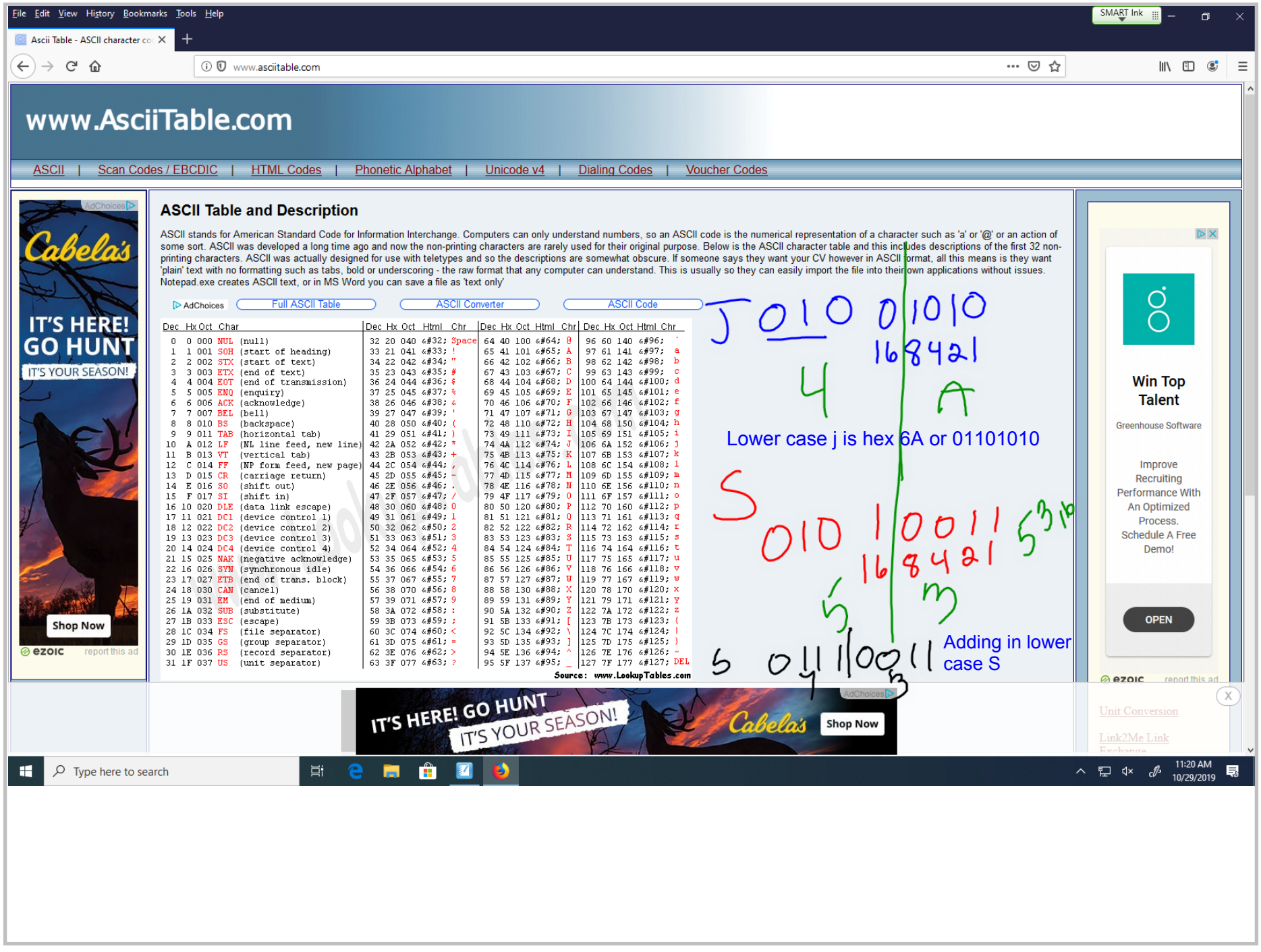
28 1C 034 FS (file separator) | 60 3C 074 < < | 92 5C 134 \ \ | 124 7C 174 | |
29 1D 035 GS (group separator) | 61 3D 075 = = | 93 5D 135]] | 125 7D 175 } }
30 1E 036 RS (record separator) | 62 3E 076 > > | 94 5E 136 ^ ^ | 126 7E 176 ~ ~
31 1F 037 US (unit separator) | 63 3F 077 ? ? | 95 5F 137 _ _ | 127 7F 177 &#127; DEL
Source: www.LookupTables.com
A 01000001 41₁₆
Z 0101 1010 5A₁₆
group which
0101 1010
16 8 4 2 1
26
AdChoices
Cabela's
IT'S HERE! GO HUNT
IT'S YOUR SEASON!
Shop Now
ezoic
report this ad
NYRA BETS
Limited-Time Bonus
BREEDERS' CUP
JOIN NOW
*See site for details
Unit Conversion
Link2Me Link
Type here to search
11:16 AM
10/29/2019



Title: Oct 29-11:19 AM (4 of 20)



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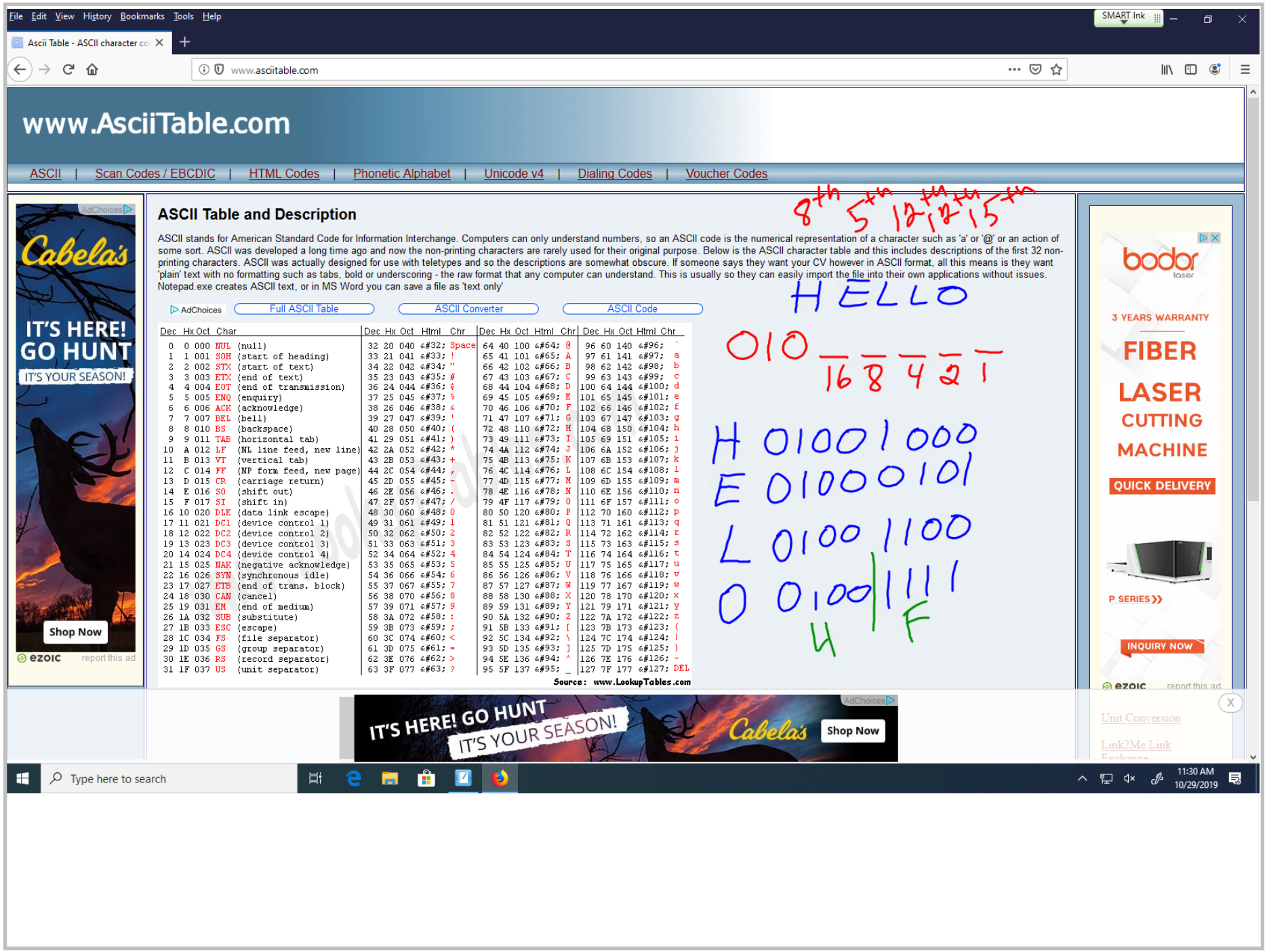

Dec	Hx	Oct	Char	Dec	Hx	Oct	Html	Chr	Dec	Hx	Oct	Html	Chr	Dec	Hx	Oct	Html	Chr
0	0	000	NUL (null)	32	20	040		Space	64	40	100	@	@	96	60	140	`	`
1	1	001	SOH (start of heading)	33	21	041	!	!	65	41	101	A	A	97	61	141	a	a
2	2	002	STX (start of text)	34	22	042	"	"	66	42	102	B	B	98	62	142	b	b
3	3	003	ETX (end of text)	35	23	043	#	#	67	43	103	C	C	99	63	143	c	c
4	4	004	EOT (end of transmission)	36	24	044	$	$	68	44	104	D	D	100	64	144	d	d
5	5	005	ENQ (enquiry)	37	25	045	%	%	69	45	105	E	E	101	65	145	e	e
6	6	006	ACK (acknowledge)	38	26	046	&	&	70	46	106	F	F	102	66	146	f	f
7	7	007	BEL (bell)	39	27	047	'	'	71	47	107	G	G	103	67	147	g	g
8	8	010	BS (backspace)	40	28	050	(	(	72	48	110	H	H	104	68	150	h	h
9	9	011	TAB (horizontal tab)	41	29	051	)	)	73	49	111	I	I	105	69	151	i	i
10	A	012	LF (NL line feed, new line)	42	2A	052	*	*	74	4A	112	J	J	106	6A	152	j	j
11	B	013	VT (vertical tab)	43	2B	053	+	+	75	4B	113	K	K	107	6B	153	k	k
12	C	014	FF (NP form feed, new page)	44	2C	054	,	,	76	4C	114	L	L	108	6C	154	l	l
13	D	015	CR (carriage return)	45	2D	055	-	-	77	4D	115	M	M	109	6D	155	m	m
14	E	016	SO (shift out)	46	2E	056	.	.	78	4E	116	N	N	110	6E	156	n	n
15	F	017	SI (shift in)	47	2F	057	/	/	79	4F	117	O	O	111	6F	157	o	o
16	10	020	DLE (data link escape)	48	30	060	0	0	80	50	120	P	P	112	70	160	p	p
17	11	021	DC1 (device control 1)	49	31	061	1	1	81	51	121	Q	Q	113	71	161	q	q
18	12	022	DC2 (device control 2)	50	32	062	2	2	82	52	122	R	R	114	72	162	r	r
19	13	023	DC3 (device control 3)	51	33	063	3	3	83	53	123	S	S	115	73	163	s	s
20	14	024	DC4 (device control 4)	52	34	064	4	4	84	54	124	T	T	116	74	164	t	t
21	15	025	NAK (negative acknowledge)	53	35	065	5	5	85	55	125	U	U	117	75	165	u	u
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25	19	031	EM (end of medium)	57	39	071	9	9	89	59	131	Y	Y	121	79	171	y	y
26	1A	032	SUB (substitute)	58	3A	072	:	:	90	5A	132	Z	Z	122	7A	172	z	z
27	1B	033	ESC (escape)	59	3B	073	;	;	91	5B	133	[	[	123	7B	173	{	{
28	1C	034	FS (file separator)	60	3C	074	<	<	92	5C	134	\	\	124	7C	174			|
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30	1E	036	RS (record separator)	62	3E	076	>	>	94	5E	136	^	^	126	7E	176	~	~
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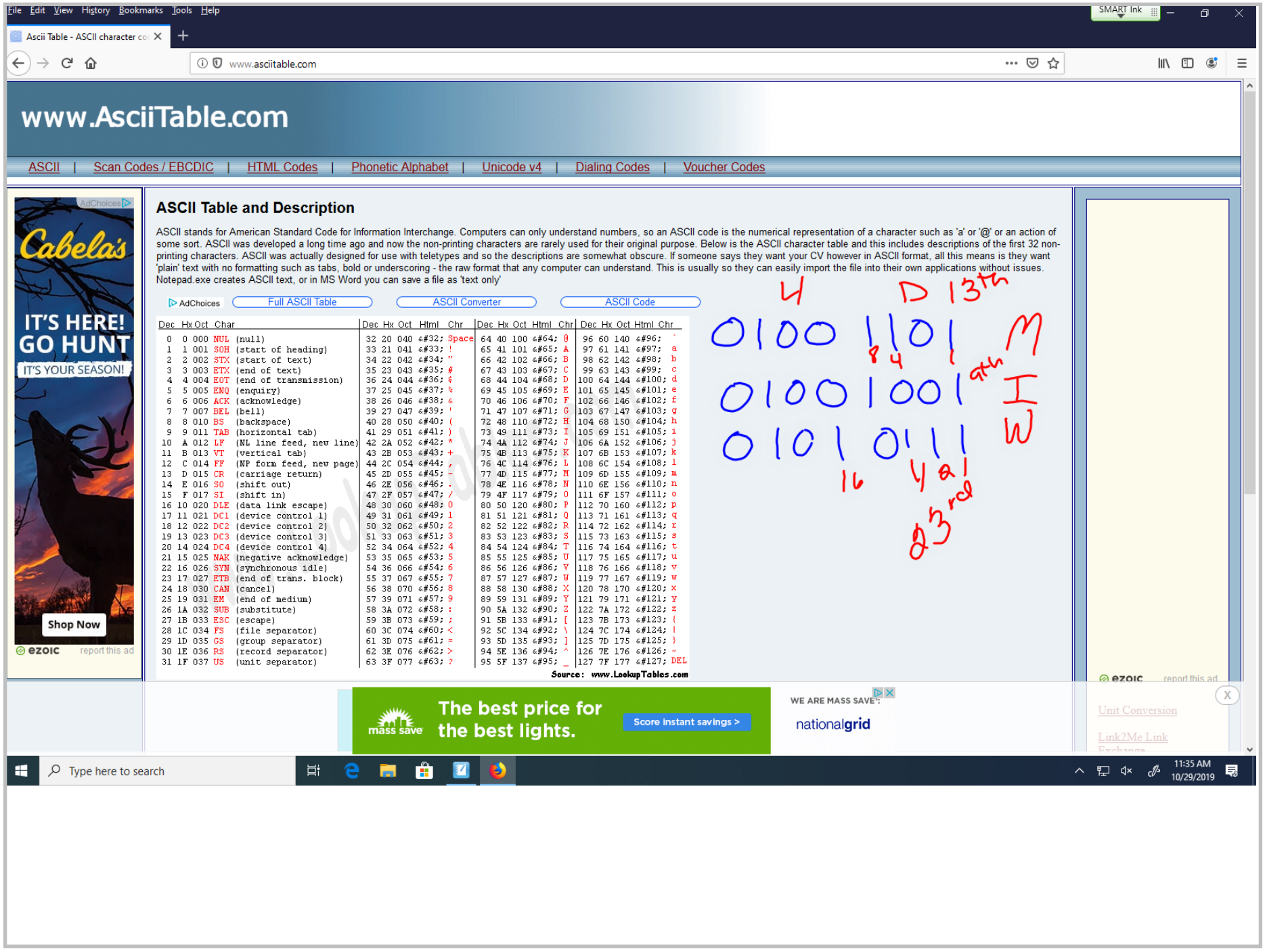

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5	5	005	ENQ (enquiry)	37	25	045	%	%	69	45	105	E	E	101	65	145	e	e
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14	E	016	SO (shift out)	46	2E	056	.	.	78	4E	116	N	N	110	6E	156	n	n
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19	13	023	DC3 (device control 3)	51	33	063	3	3	83	53	123	S	S	115	73	163	s	s
20	14	024	DC4 (device control 4)	52	34	064	4	4	84	54	124	T	T	116	74	164	t	t
21	15	025	NAK (negative acknowledge)	53	35	065	5	5	85	55	125	U	U	117	75	165	u	u
22	16	026	SYN (synchronous idle)	54	36	066	6	6	86	56	126	V	V	118	76	166	v	v
23	17	027	ETB (end of trans. block)	55	37	067	7	7	87	57	127	W	W	119	77	167	w	w
24	18	030	CAN (cancel)	56	38	070	8	8	88	58	130	X	X	120	78	170	x	x
25	19	031	EM (end of medium)	57	39	071	9	9	89	59	131	Y	Y	121	79	171	y	y
26	1A	032	SUB (substitute)	58	3A	072	:	:	90	5A	132	Z	Z	122	7A	172	z	z
27	1B	033	ESC (escape)	59	3B	073	;	;	91	5B	133	[	[	123	7B	173	{	{
28	1C	034	FS (file separator)	60	3C	074	<	<	92	5C	134	\	\	124	7C	174			|
29	1D	035	GS (group separator)	61	3D	075	=	=	93	5D	135	]	]	125	7D	175	}	}
30	1E	036	RS (record separator)	62	3E	076	>	>	94	5E	136	^	^	126	7E	176	~	~
31	1F	037	US (unit separator)	63	3F	077	?	?	95	5F	137	_	_	127	7F	177	&#127;	DEL

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Ascii Table - ASCII character co | Numbering Systems and Compute

www.pgrocer.net/Cis17/notes/numbers.html

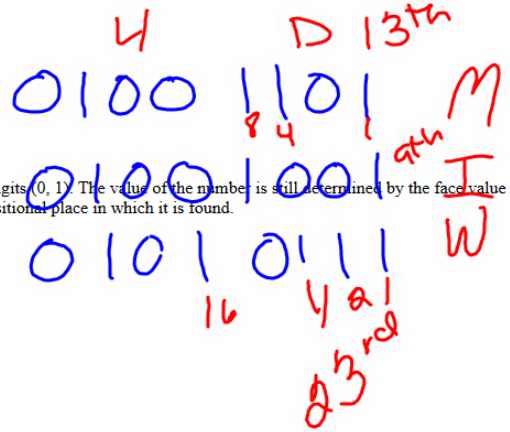
Numbering Systems and Computer Codes
Prepared by The Computer Information Systems Department

Decimal Numbering Systems:
The decimal numbering system is a base 10 numbering system (this means there are 10 digits we can use - these digits are 0, 1, 2, 3, 4, 5, 6, 7, 8, 9). When we talk about a number, we understand what the number is because of its face value and its positional value. Thus, the digit 5 has a different meaning when it is in the tens position than when it is in the ones position (i.e. when it is in the tens position, we express it as 50 and when it is in the ones position, we express it as 5). In this case, the face value of the digit is 5 and the positional value of a number is based on the position it occupies. In decimal, the positional value of a number is based on the powers of 10 (remember, we are in base 10):

5	7	2	4	Face value
10^3	10^2	10^1	10^0	Positional Value (powers of 10)
1000	100	10	1	Resolved positional value

To figure out the value of 5724, we do the following:

$5 \times 10^3 = 5 \times 1000 =$	5000
$7 \times 10^2 = 7 \times 100 =$	700
$2 \times 10^1 = 2 \times 10 =$	20
$4 \times 10^0 = 4 \times 1 =$	4
	5724



Binary Numbering systems:
The binary numbering system works much the same way as the decimal numbering system except that now we are in base 2 so we only have 2 digits (0, 1). The value of the number is still determined by the face value times the positional value, but since we are in base 2, the positional values are the powers of 2. Since the face values can only be 0 or 1, this means that the 0 or 1 is multiplied by the positional place in which it is found.
Example: binary number 1011011

1	0	1	1	0	1	1	Face value
2^6	2^5	2^4	2^3	2^2	2^1	2^0	Positional value
64	32	16	8	4	2	1	Resolved positional value

The positional values are first shown in the powers of 2 and then as the resolved number - in other words, 2 to the 6th is equal to 64.

Converting binary to decimal:
In the previous example to find the decimal equivalent for the number 1011011, we do the following:

$1 \times 2^6 = 1 \times 64 =$	64
$0 \times 2^5 = 0 \times 32 =$	0
$1 \times 2^4 = 1 \times 16 =$	16
$1 \times 2^3 = 1 \times 8 =$	8
$0 \times 2^2 = 0 \times 4 =$	0
$1 \times 2^1 = 1 \times 2 =$	2
$1 \times 2^0 = 1 \times 1 =$	1
	91

Converting decimal to binary:
Before doing this it is important that we review the decimal equivalent for the frequently used powers of 2:

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Ascii Table - ASCII character co | Numbering Systems and Compute

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As you can see from the chart above, every hexadecimal digit can be represented by 4 binary digits (bits) and every combination of 4 binary digits can be represented by a single hexadecimal digit. Because of this, any string of 4 binary digits can be converted to its hexadecimal equivalent by either checking the chart above or doing the conversion. If I have a string of binary digits, it can be divided into groups of four starting at the far right and each group can be converted to its hexadecimal equivalent.

Examples:

1. 11001111 can be divided into groups of 4
   1100/ 1111 1100 is C and 1111 is F
   C F
   therefore the hexadecimal equivalent of 11001111 is CF

2. the hexadecimal equivalent of 11010101110101 is 3575
   11010101110101 = 11/ 0101/ 0111/ 0101
   3 5 7 5

Note that if there are not enough digits to make groups of 4, then you start at the right and the group with less than 4 digits is the leftmost group Ð in translating that group, assume leading 0s.

Conversion from hexadecimal to binary:
To convert from hexadecimal to binary, you express each hexadecimal character as 4 binary digits Ð either use the chart above or figure out the equivalent.

Example:
Convert the hexadecimal number 5E49 to binary:

5	E	4	9
0101	1110	0100	1001

Hexadecimal 5E49 is equal to binary 0101111001001001 (note, the leading 0 could be omitted without hurting the validity of the number).

Comptuer Codes:
The letters, numbers and special characters that we input into the computer are stored using a computer code. The computer code is a way of representing each character using only the 0 and 1 binary bits that the computer understands. Two computer codes that are used today are EBCDIC and ASCII. ASCII is the code that is used on your microcomputer.

EBCDIC (Extended Binary Coded Decimal Interchange Code):
EBCDIC is a 8 bit code where the left four bits are called the zone and the right four bits are called the digit portion. The zone part of the code tells what ÒgroupÓ the character is part of, while the digit part of the code identifies the specific character within the group. EBCDIC has codes for upper case and lower case letters, numbers and special characters. This handout will deal only with upper case letters and numbers.
The structure of the EBCDIC code is:

_ _ _ _ _ _ _ _
z o n e/ d i g it

Zone: 1 1 _ _ The 11 in the first two digits of the zone indicates an upper case letter or a number.
The last two digits of the zone represent the group or range:

code	range
00	A - I
01	J - R
10	S - Z
11	numbers

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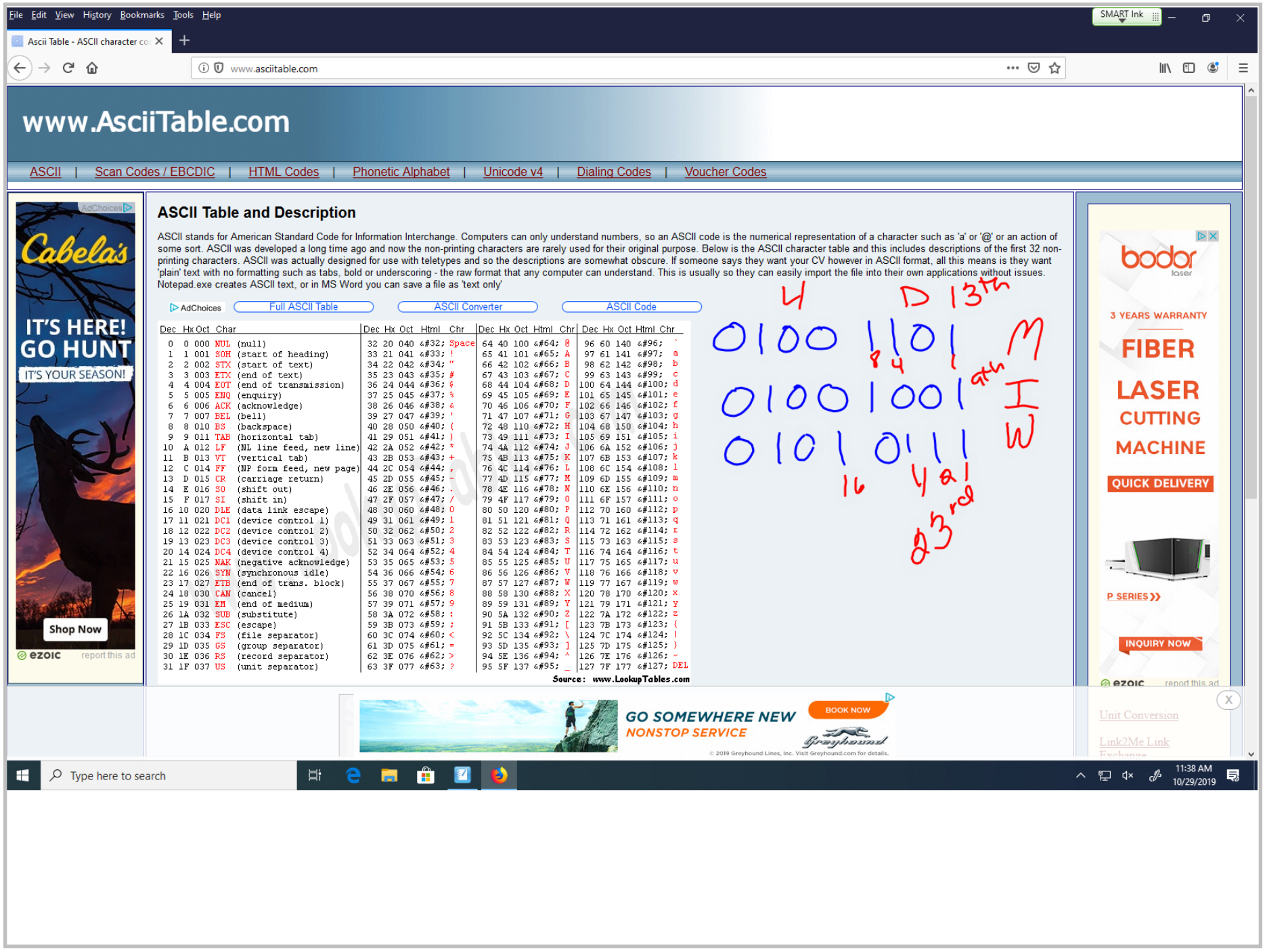
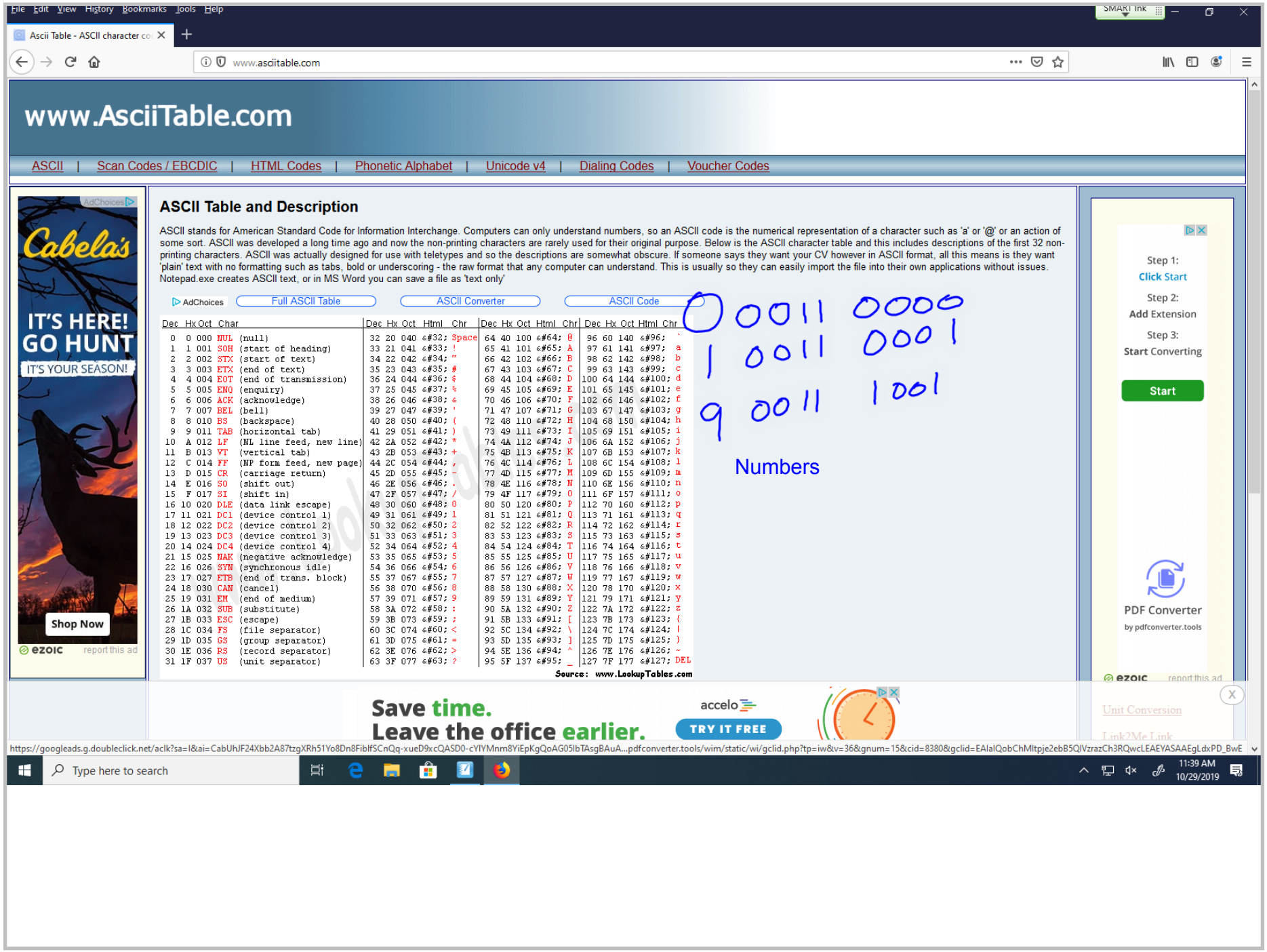


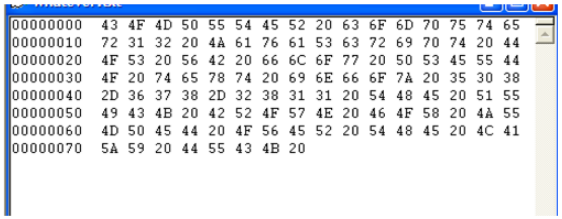
Dec	Hx	Oct	Char	Dec	Hx	Oct	Html	Chr	Dec	Hx	Oct	Html	Chr	Dec	Hx	Oct	Html	Chr
0	0	000	NUL (null)	32	20	040		Space	64	40	100	@	@	96	60	140	`	`
1	1	001	SOH (start of heading)	33	21	041	!	!	65	41	101	A	A	97	61	141	a	a
2	2	002	STX (start of text)	34	22	042	"	"	66	42	102	B	B	98	62	142	b	b
3	3	003	ETX (end of text)	35	23	043	#	#	67	43	103	C	C	99	63	143	c	c
4	4	004	EOT (end of transmission)	36	24	044	$	$	68	44	104	D	D	100	64	144	d	d
5	5	005	ENQ (enquiry)	37	25	045	%	%	69	45	105	E	E	101	65	145	e	e
6	6	006	ACK (acknowledge)	38	26	046	&	&	70	46	106	F	F	102	66	146	f	f
7	7	007	BEL (bell)	39	27	047	'	'	71	47	107	G	G	103	67	147	g	g
8	8	010	BS (backspace)	40	28	050	(	(	72	48	110	H	H	104	68	150	h	h
9	9	011	TAB (horizontal tab)	41	29	051	)	)	73	49	111	I	I	105	69	151	i	i
10	A	012	LF (NL line feed, new line)	42	2A	052	*	*	74	4A	112	J	J	106	6A	152	j	j
11	B	013	VT (vertical tab)	43	2B	053	+	+	75	4B	113	K	K	107	6B	153	k	k
12	C	014	FF (NP form feed, new page)	44	2C	054	,	,	76	4C	114	L	L	108	6C	154	l	l
13	D	015	CR (carriage return)	45	2D	055	-	-	77	4D	115	M	M	109	6D	155	m	m
14	E	016	SO (shift out)	46	2E	056	.	.	78	4E	116	N	N	110	6E	156	n	n
15	F	017	SI (shift in)	47	2F	057	/	/	79	4F	117	O	O	111	6F	157	o	o
16	10	020	DLE (data link escape)	48	30	060	0	0	80	50	120	P	P	112	70	160	p	p
17	11	021	DC1 (device control 1)	49	31	061	1	1	81	51	121	Q	Q	113	71	161	q	q
18	12	022	DC2 (device control 2)	50	32	062	2	2	82	52	122	R	R	114	72	162	r	r
19	13	023	DC3 (device control 3)	51	33	063	3	3	83	53	123	S	S	115	73	163	s	s
20	14	024	DC4 (device control 4)	52	34	064	4	4	84	54	124	T	T	116	74	164	t	t
21	15	025	NAK (negative acknowledge)	53	35	065	5	5	85	55	125	U	U	117	75	165	u	u
22	16	026	SYN (synchronous idle)	54	36	066	6	6	86	56	126	V	V	118	76	166	v	v
23	17	027	ETB (end of trans. block)	55	37	067	7	7	87	57	127	W	W	119	77	167	w	w
24	18	030	CAN (cancel)	56	38	070	8	8	88	58	130	X	X	120	78	170	x	x
25	19	031	EM (end of medium)	57	39	071	9	9	89	59	131	Y	Y	121	79	171	y	y
26	1A	032	SUB (substitute)	58	3A	072	:	:	90	5A	132	Z	Z	122	7A	172	z	z
27	1B	033	ESC (escape)	59	3B	073	;	;	91	5B	133	[	[	123	7B	173	{	{
28	1C	034	FS (file separator)	60	3C	074	<	<	92	5C	134	\	\	124	7C	174			|
29	1D	035	GS (group separator)	61	3D	075	=	=	93	5D	135	]	]	125	7D	175	}	}
30	1E	036	RS (record separator)	62	3E	076	>	>	94	5E	136	^	^	126	7E	176	~	~
31	1F	037	US (unit separator)	63	3F	077	?	?	95	5F	137	_	_	127	7F	177	&#127;	DEL



Dec	Hx	Oct	Char	Dec	Hx	Oct	Html	Chr	Dec	Hx	Oct	Html	Chr	Dec	Hx	Oct	Html	Chr
0	0	000	NUL (null)	32	20	040		Space	64	40	100	@	@	96	60	140	`	`
1	1	001	SOH (start of heading)	33	21	041	!	!	65	41	101	A	A	97	61	141	a	a
2	2	002	STX (start of text)	34	22	042	"	"	66	42	102	B	B	98	62	142	b	b
3	3	003	ETX (end of text)	35	23	043	#	#	67	43	103	C	C	99	63	143	c	c
4	4	004	EOT (end of transmission)	36	24	044	$	$	68	44	104	D	D	100	64	144	d	d
5	5	005	ENQ (enquiry)	37	25	045	%	%	69	45	105	E	E	101	65	145	e	e
6	6	006	ACK (acknowledge)	38	26	046	&	&	70	46	106	F	F	102	66	146	f	f
7	7	007	BEL (bell)	39	27	047	'	'	71	47	107	G	G	103	67	147	g	g
8	8	010	BS (backspace)	40	28	050	(	(	72	48	110	H	H	104	68	150	h	h
9	9	011	TAB (horizontal tab)	41	29	051	)	)	73	49	111	I	I	105	69	151	i	i
10	A	012	LF (NL line feed, new line)	42	2A	052	*	*	74	4A	112	J	J	106	6A	152	j	j
11	B	013	VT (vertical tab)	43	2B	053	+	+	75	4B	113	K	K	107	6B	153	k	k
12	C	014	FF (NP form feed, new page)	44	2C	054	,	,	76	4C	114	L	L	108	6C	154	l	l
13	D	015	CR (carriage return)	45	2D	055	-	-	77	4D	115	M	M	109	6D	155	m	m
14	E	016	SO (shift out)	46	2E	056	.	.	78	4E	116	N	N	110	6E	156	n	n
15	F	017	SI (shift in)	47	2F	057	/	/	79	4F	117	O	O	111	6F	157	o	o
16	10	020	DLE (data link escape)	48	30	060	0	0	80	50	120	P	P	112	70	160	p	p
17	11	021	DC1 (device control 1)	49	31	061	1	1	81	51	121	Q	Q	113	71	161	q	q
18	12	022	DC2 (device control 2)	50	32	062	2	2	82	52	122	R	R	114	72	162	r	r
19	13	023	DC3 (device control 3)	51	33	063	3	3	83	53	123	S	S	115	73	163	s	s
20	14	024	DC4 (device control 4)	52	34	064	4	4	84	54	124	T	T	116	74	164	t	t
21	15	025	NAK (negative acknowledge)	53	35	065	5	5	85	55	125	U	U	117	75	165	u	u
22	16	026	SYN (synchronous idle)	54	36	066	6	6	86	56	126	V	V	118	76	166	v	v
23	17	027	ETB (end of trans. block)	55	37	067	7	7	87	57	127	W	W	119	77	167	w	w
24	18	030	CAN (cancel)	56	38	070	8	8	88	58	130	X	X	120	78	170	x	x
25	19	031	EM (end of medium)	57	39	071	9	9	89	59	131	Y	Y	121	79	171	y	y
26	1A	032	SUB (substitute)	58	3A	072	:	:	90	5A	132	Z	Z	122	7A	172	z	z
27	1B	033	ESC (escape)	59	3B	073	;	;	91	5B	133	[	[	123	7B	173	{	{
28	1C	034	FS (file separator)	60	3C	074	<	<	92	5C	134	\	\	124	7C	174			|
29	1D	035	GS (group separator)	61	3D	075	=	=	93	5D	135	]	]	125	7D	175	}	}
30	1E	036	RS (record separator)	62	3E	076	>	>	94	5E	136	^	^	126	7E	176	~	~
31	1F	037	US (unit separator)	63	3F	077	?	?	95	5F	137	_	_	127	7F	177	&#127;	DEL

11011 - 101	10001 - 111	11101 - 111	101010 - 11111

#2) I wrote a text file in notepad and then opened it so that you could see the hexadecimal translation of what I wrote. Look at the hexadecimal translation and then tell me what I wrote for the first four lines. Your answers should be in character (be aware of cases).

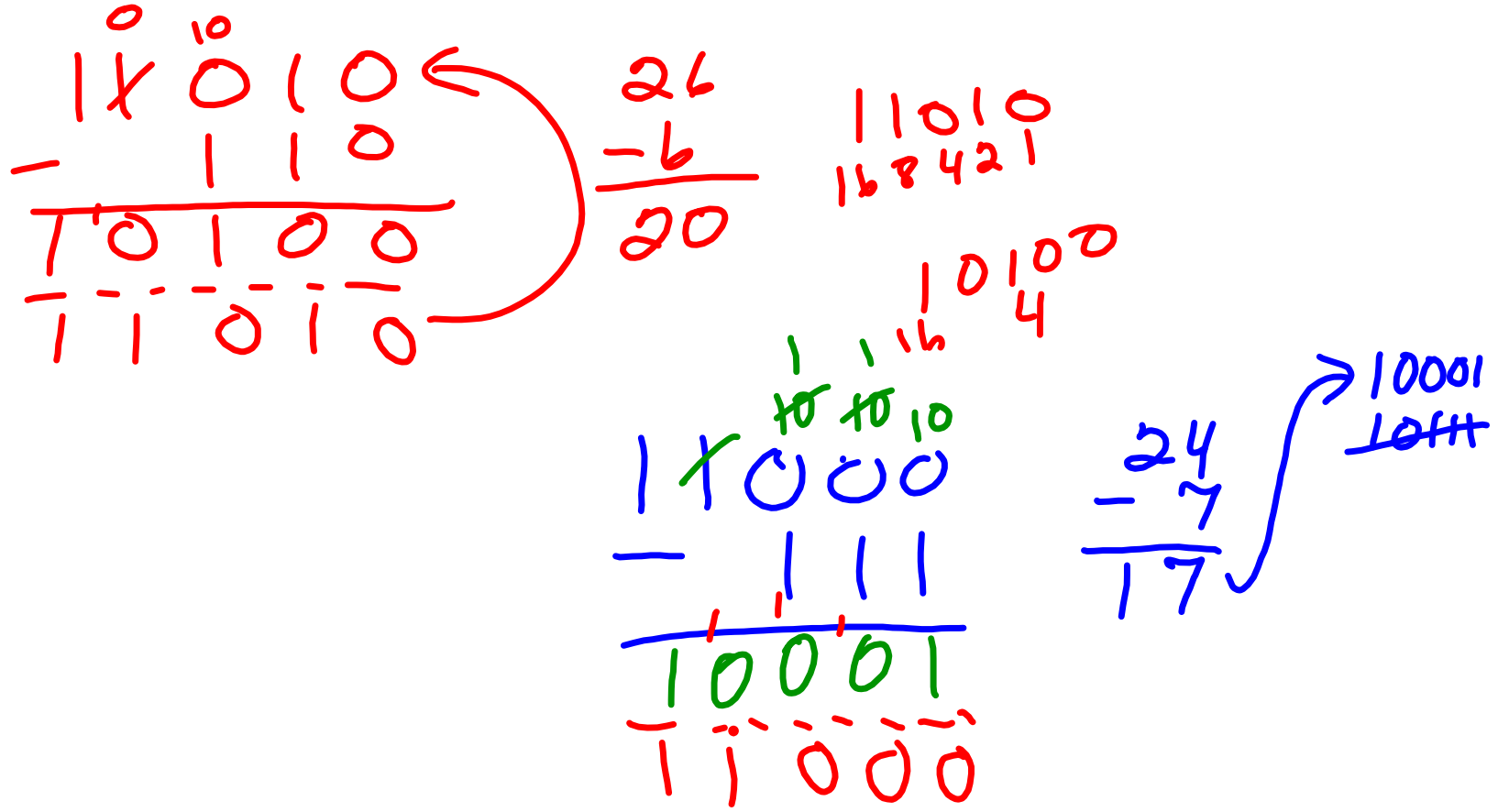


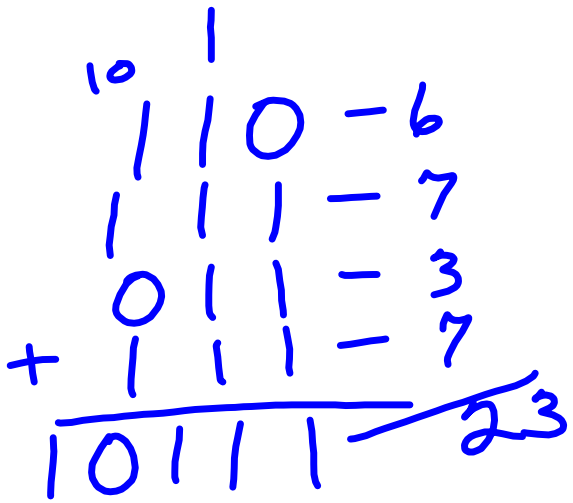
```
00000000  43 4F 4D 50 55 54 45 52 20 63 6F 6D 70 75 74 65
00000010  72 31 32 20 4A 61 76 61 53 63 72 69 70 74 20 44
00000020  4F 53 20 56 42 20 66 6C 6F 77 20 50 53 45 55 44
00000030  4F 20 74 65 78 74 20 69 6E 66 6F 7A 20 35 30 38
00000040  2D 36 37 38 2D 32 38 31 31 20 54 48 45 20 51 55
00000050  49 43 4B 20 42 52 4F 57 4E 20 46 4F 58 20 4A 55
00000060  4D 50 45 44 20 4F 56 45 52 20 54 48 45 20 4C 41
00000070  5A 59 20 44 55 43 4B 20
```

#3) Write the ASCII 8 bit code (that means the 8 0s and 1s) for the following hex (see above)

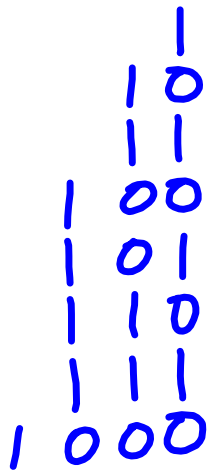
53 4E 4A 58

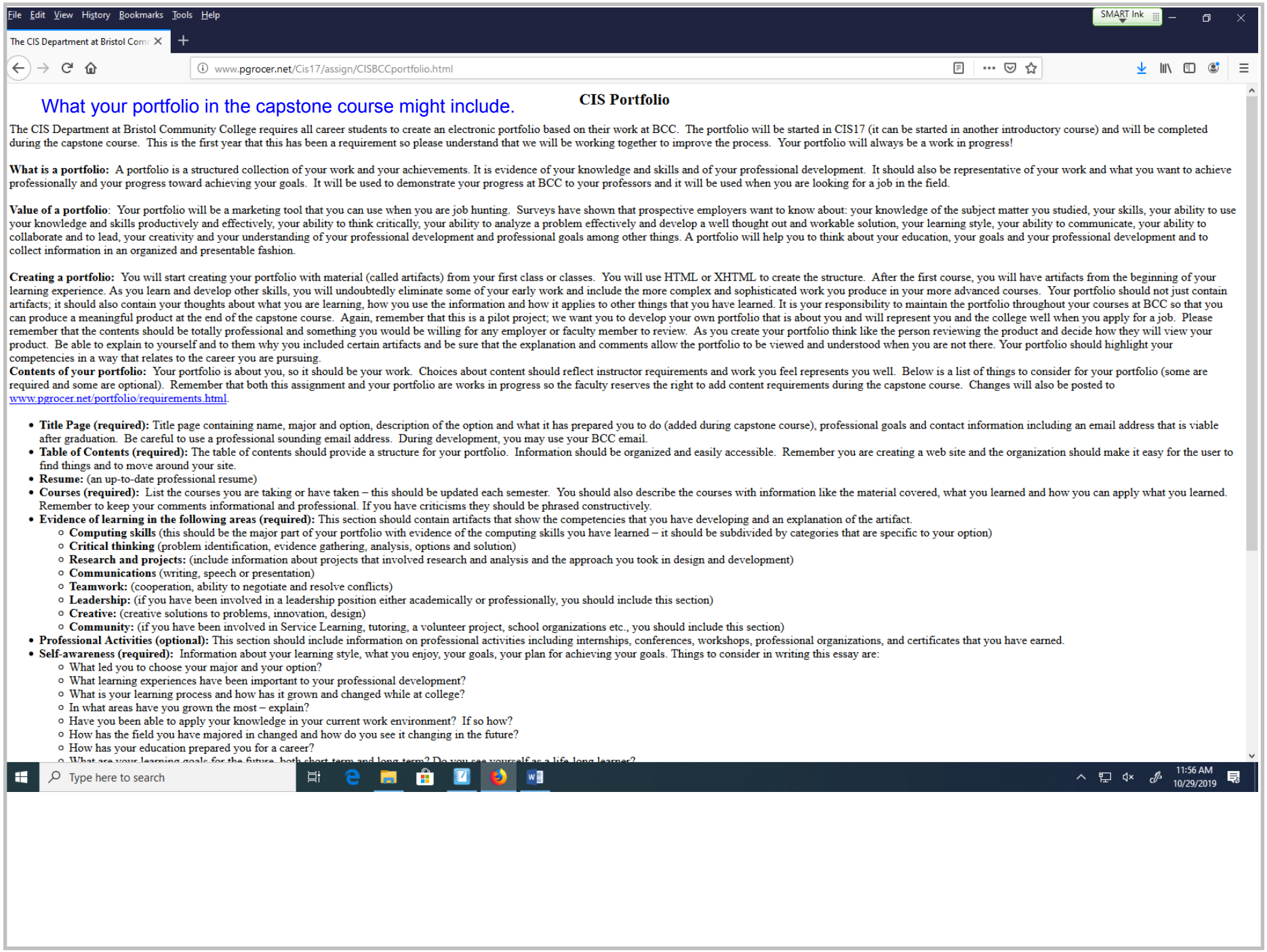
4B 38 74 6A 51


11010
110
10100
11010
26
-6
20
11010
16 8 4 2 1
10100
4
10000
-24
-7
17
10001
10111

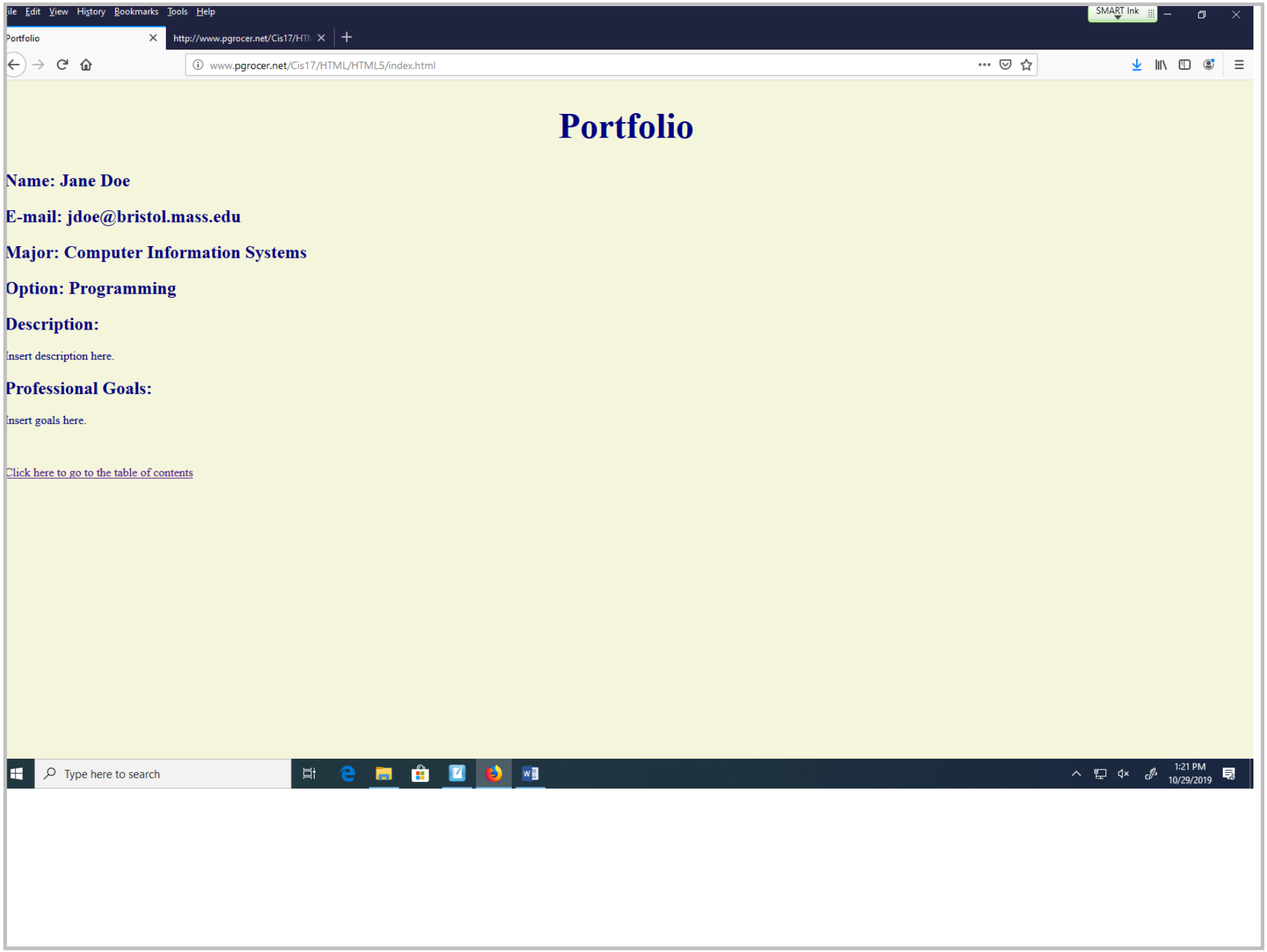


$10111_2 = 23_{10}$





Title: Oct 29-11:56 AM (15 of 20)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www.pgrocer.net/Cis17/HTML/HTML5/index.html
Portfolio
Name: Jane Doe
E-mail: jdoe@bristol.mass.edu
Major: Computer Information Systems
Option: Programming
Description:
Insert description here.
Professional Goals:
Insert goals here.
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1:21 PM
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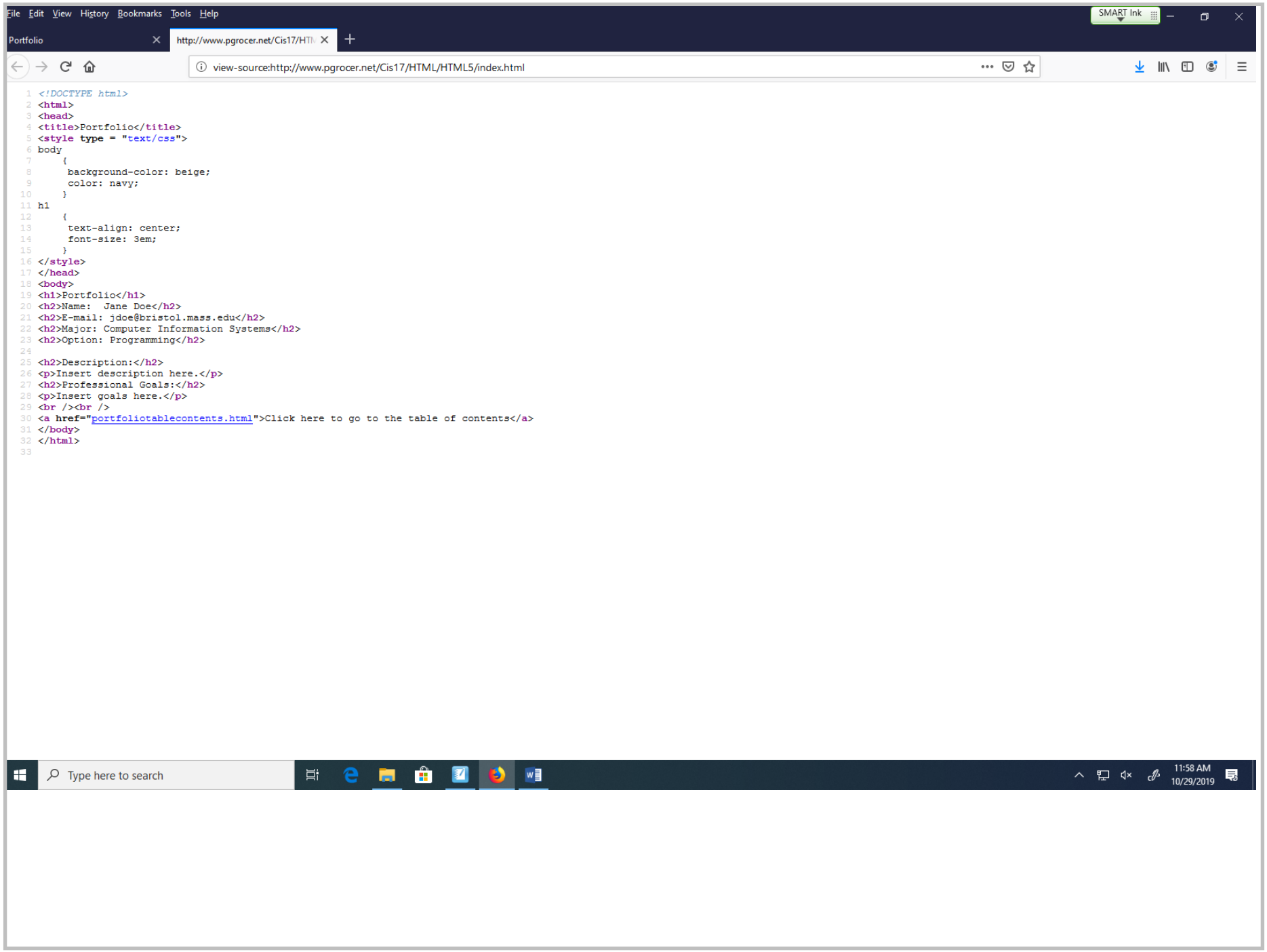
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Portfolio
http://www.pgrocer.net/Cis17/HTM
view-source:http://www.pgrocer.net/Cis17/HTML/HTML5/index.html
<!DOCTYPE html>
<html>
<head>
<title>Portfolio</title>
<style type = "text/css">
body
{
background-color: beige;
color: navy;
}
h1
{
text-align: center;
font-size: 3em;
}
</style>
</head>
<body>
<h1>Portfolio</h1>
<h2>Name: Jane Doe</h2>
<h2>E-mail: jdoe@bristol.mass.edu</h2>
<h2>Major: Computer Information Systems</h2>
<h2>Option: Programming</h2>
<h2>Description:</h2>
Insert description here.
<h2>Professional Goals:</h2>
Insert goals here.

Click here to go to the table of contents
</body>
</html>
Type here to search
11:58 AM
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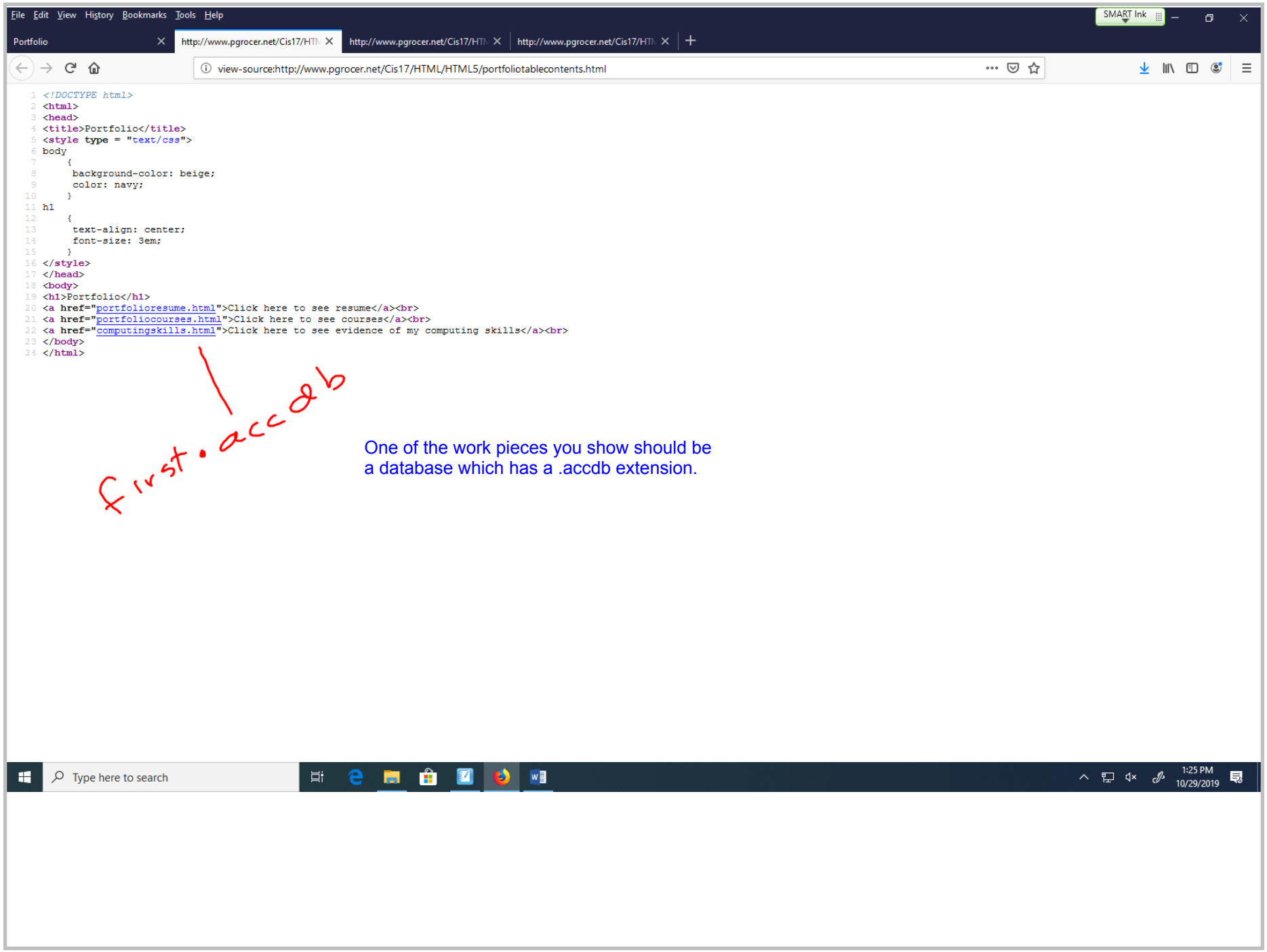
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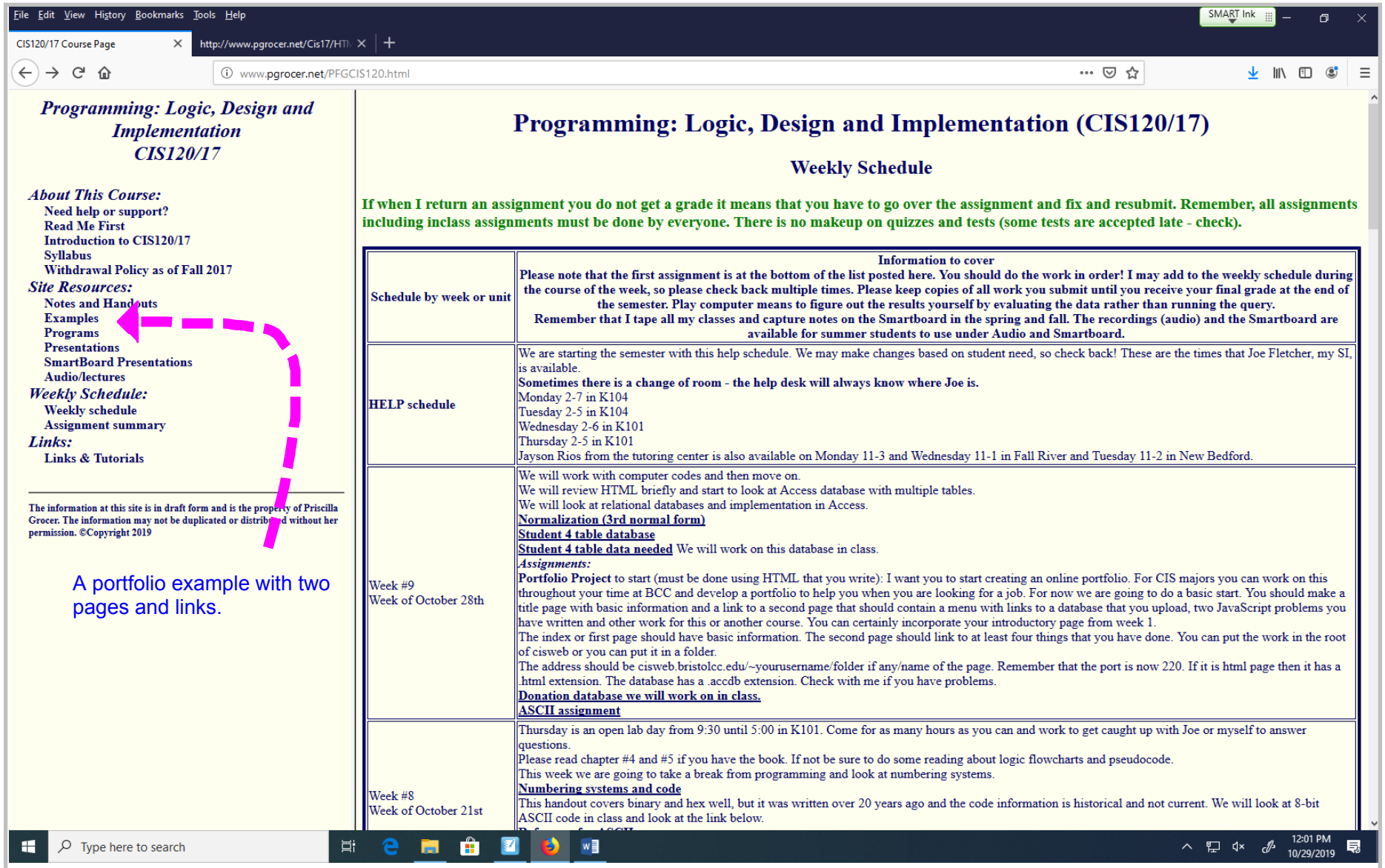
http://www.pgrocer.net/Cis17/HTM
http://www.pgrocer.net/Cis17/HTM
view-source:http://www.pgrocer.net/Cis17/HTML/HTML5/portfoliotablecontents.html
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <title>Portfolio</title>
5 <style type = "text/css">
6 body
7 {
8 background-color: beige;
9 color: navy;
10 }
11 h1
12 {
13 text-align: center;
14 font-size: 3em;
15 }
16 </style>
17 </head>
18 <body>
19 <h1>Portfolio</h1>
20 Click here to see resume
21 Click here to see courses
22 Click here to see evidence of my computing skills
23 </body>
24 </html>
first.accdb
One of the work pieces you show should be
a database which has a .accdb extension.
Type here to search
1:25 PM
10/29/2019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www.pgrocer.net/PFGCIS120.html
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Syllabus
Withdrawal Policy as of Fall 2017
Site Resources:
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A portfolio example with two pages and links.
Programming: Logic, Design and Implementation (CIS120/17)
Weekly Schedule
If when I return an assignment you do not get a grade it means that you have to go over the assignment and fix and resubmit. Remember, all assignments including inclass assignments must be done by everyone. There is no makeup on quizzes and tests (some tests are accepted late - check).
Schedule by week or unit
Information to cover
Please note that the first assignment is at the bottom of the list posted here. You should do the work in order! I may add to the weekly schedule during the course of the week, so please check back multiple times. Please keep copies of all work you submit until you receive your final grade at the end of the semester. Play computer means to figure out the results yourself by evaluating the data rather than running the query.
Remember that I tape all my classes and capture notes on the Smartboard in the spring and fall. The recordings (audio) and the Smartboard are available for summer students to use under Audio and Smartboard.
HELP schedule
We are starting the semester with this help schedule. We may make changes based on student need, so check back! These are the times that Joe Fletcher, my SI, is available.
Sometimes there is a change of room - the help desk will always know where Joe is.
Monday 2-7 in K104
Tuesday 2-5 in K104
Wednesday 2-6 in K101
Thursday 2-5 in K101
Jayson Rios from the tutoring center is also available on Monday 11-3 and Wednesday 11-1 in Fall River and Tuesday 11-2 in New Bedford.
Week #9
Week of October 28th
We will work with computer codes and then move on.
We will review HTML briefly and start to look at Access database with multiple tables.
We will look at relational databases and implementation in Access.
Normalization (3rd normal form)
Student 4 table database
Student 4 table data needed We will work on this database in class.
Assignments:
Portfolio Project to start (must be done using HTML that you write): I want you to start creating an online portfolio. For CIS majors you can work on this throughout your time at BCC and develop a portfolio to help you when you are looking for a job. For now we are going to do a basic start. You should make a title page with basic information and a link to a second page that should contain a menu with links to a database that you upload, two JavaScript problems you have written and other work for this or another course. You can certainly incorporate your introductory page from week 1.
The index or first page should have basic information. The second page should link to at least four things that you have done. You can put the work in the root of cisweb or you can put it in a folder.
The address should be cisweb.bristolcc.edu/~yourusername/folder if any/name of the page. Remember that the port is now 220. If it is html page then it has a .html extension. The database has a .accdb extension. Check with me if you have problems.
Donation database we will work on in class.
ASCII assignment
Week #8
Week of October 21st
Thursday is an open lab day from 9:30 until 5:00 in K101. Come for as many hours as you can and work to get caught up with Joe or myself to answer questions.
Please read chapter #4 and #5 if you have the book. If not be sure to do some reading about logic flowcharts and pseudocode.
This week we are going to take a break from programming and look at numbering systems.
Numbering systems and code
This handout covers binary and hex well, but it was written over 20 years ago and the code information is historical and not current. We will look at 8-bit ASCII code in class and look at the link below.
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Notes on Relational Databases: | http://www.pgrocer.net/Cis17/HTM

www.pgrocer.net/Cis54/relation.html

Notes on Relational Databases:

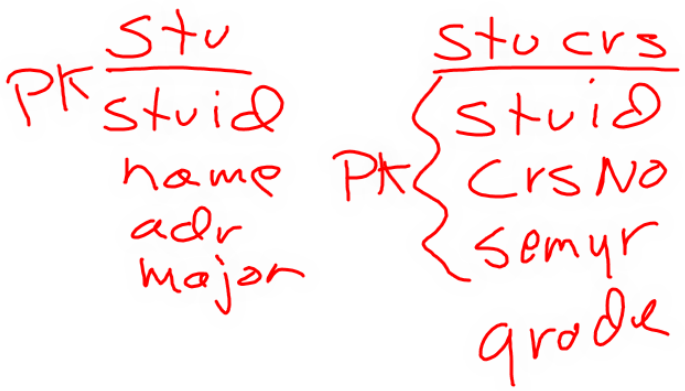
A database can consist of multiple tables/files. These tables/files are related to each other in some way so that the programmer or developer can access information from multiple table/files at the same time. A database management system is the database and its functionality. In today's PC environment, the model of relating the table/files within a database is the relational database model. Things that must be considered in a relational database:

- Analyze the data and determine how to design the files - consider whether the data is in a one to one relationship, a one to many relationship or a many to many relationship.
- Consider functional dependence: An attribute B, is functionally depended on another attribute, A if a value for A determines a single value for B at any one time.
- The primary key has all attributes in the table functionally dependent upon it - to simplify you can think of the primary key as the minimum collection of fields that will get you one and only one record from the table/file.
- We must also consider the rules of normalization and establish the relationships so that the database is in third normal form.

- A relation is in **first normal form** if it does not contain repeating groups.

- A relation is in **second normal form** if it is in first normal form and no non-key attribute is dependent on only a portion of the primary key. (Note: an attribute is a non-key attribute if it is not a part of the primary key).

- A relation is in **third normal form** if it is in second normal form and if the only determinants it contains are candidate keys. (Note: any attribute that determines another attribute is called a determinant).



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